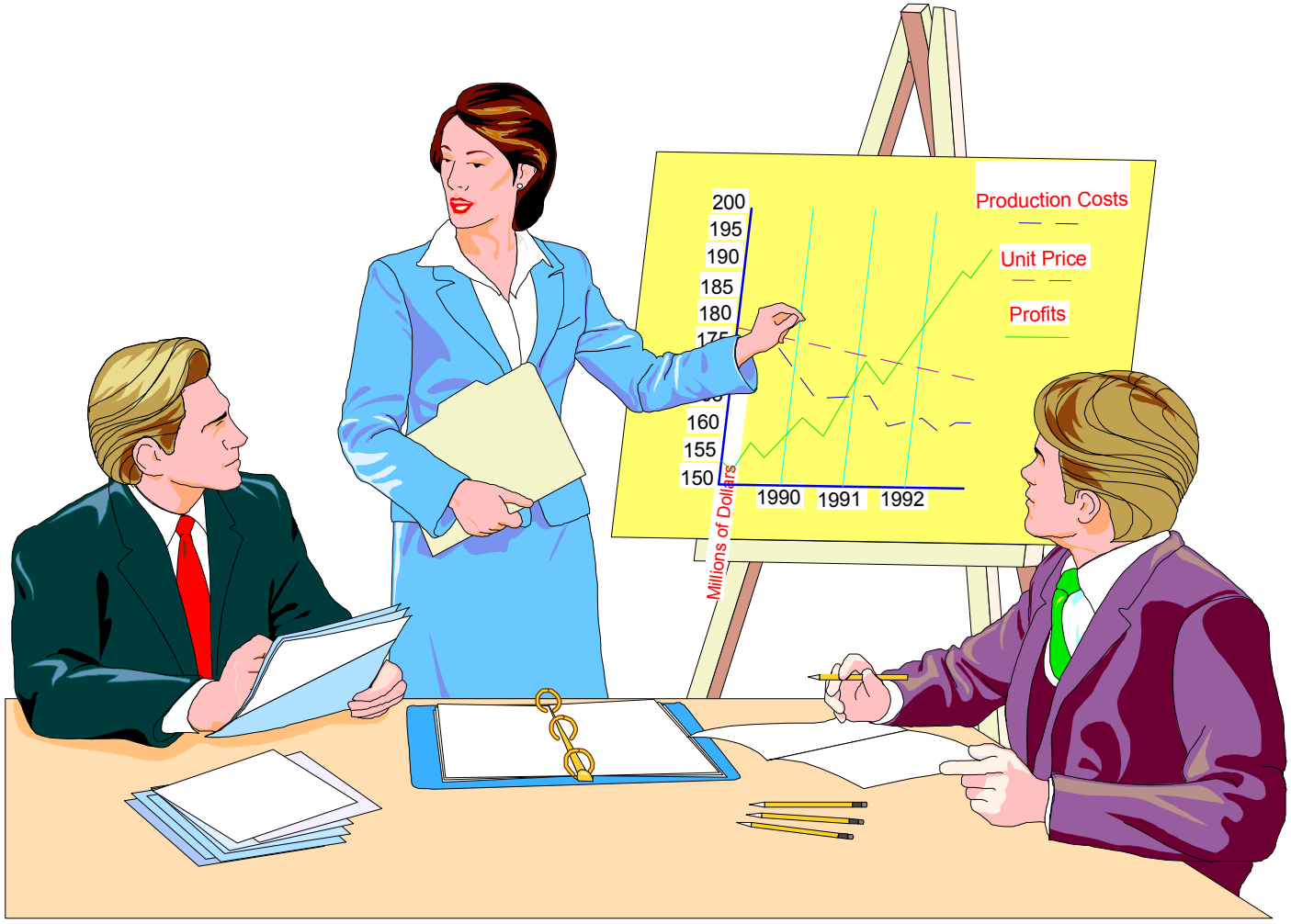
Planning Is Everything



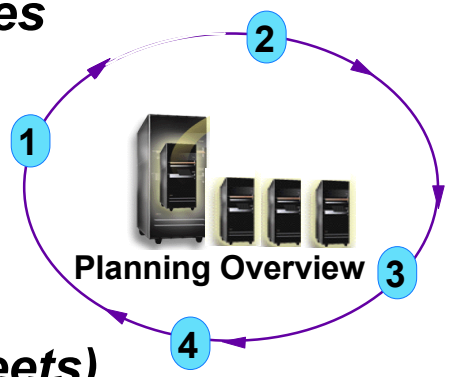
Planning Overview in V5R1

1 Customer Starting Responsibilities

- *Use the Web http://www-1.ibm.com/servers/eserver/iseries/lpar/*
- *Complete the design phase*

2 Business Partner and Marketing Activities

- *Can supply a complete range of on-site services*
- *Interface with the Technology Solution Centre*



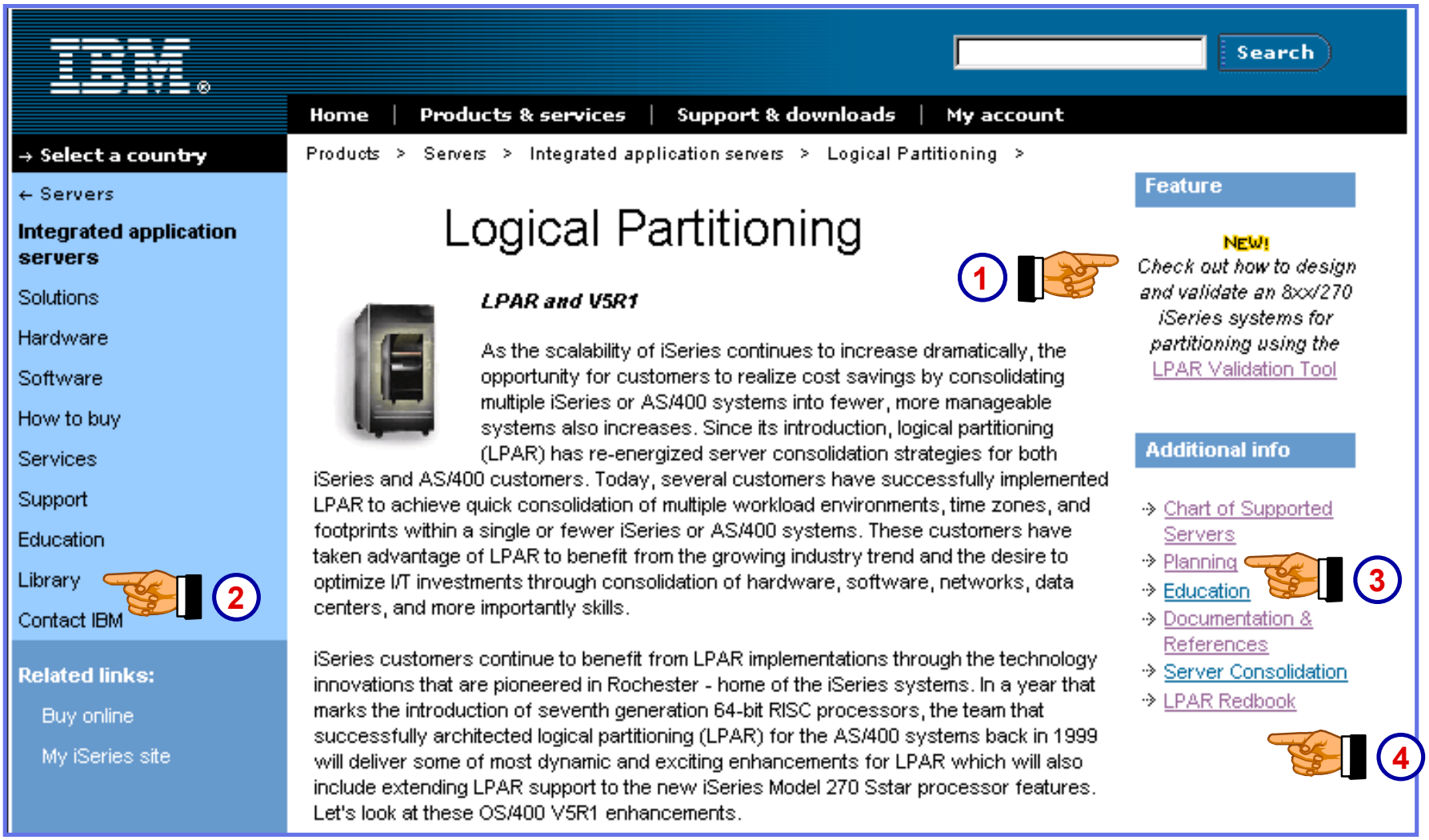
3 Technology Solution Centre

- *Customized hardware configuration*
- *Verifies the design phase (Planning Work Sheets)*

4 Install new hardware and Software

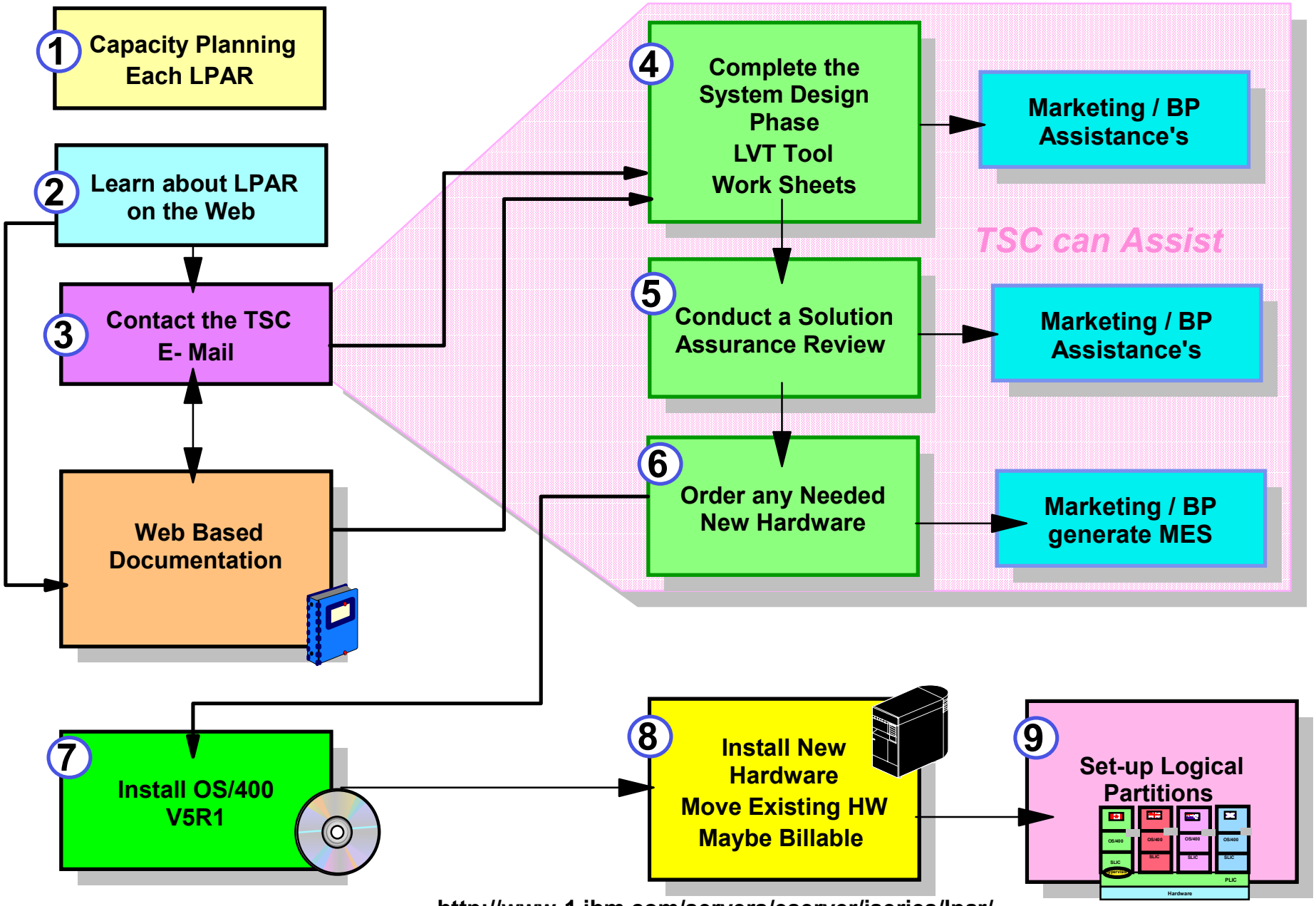
- *Relocating hardware for LPAR is a Billable Service*
- *This applies to new and existing installations*

Starting Point in V5R1

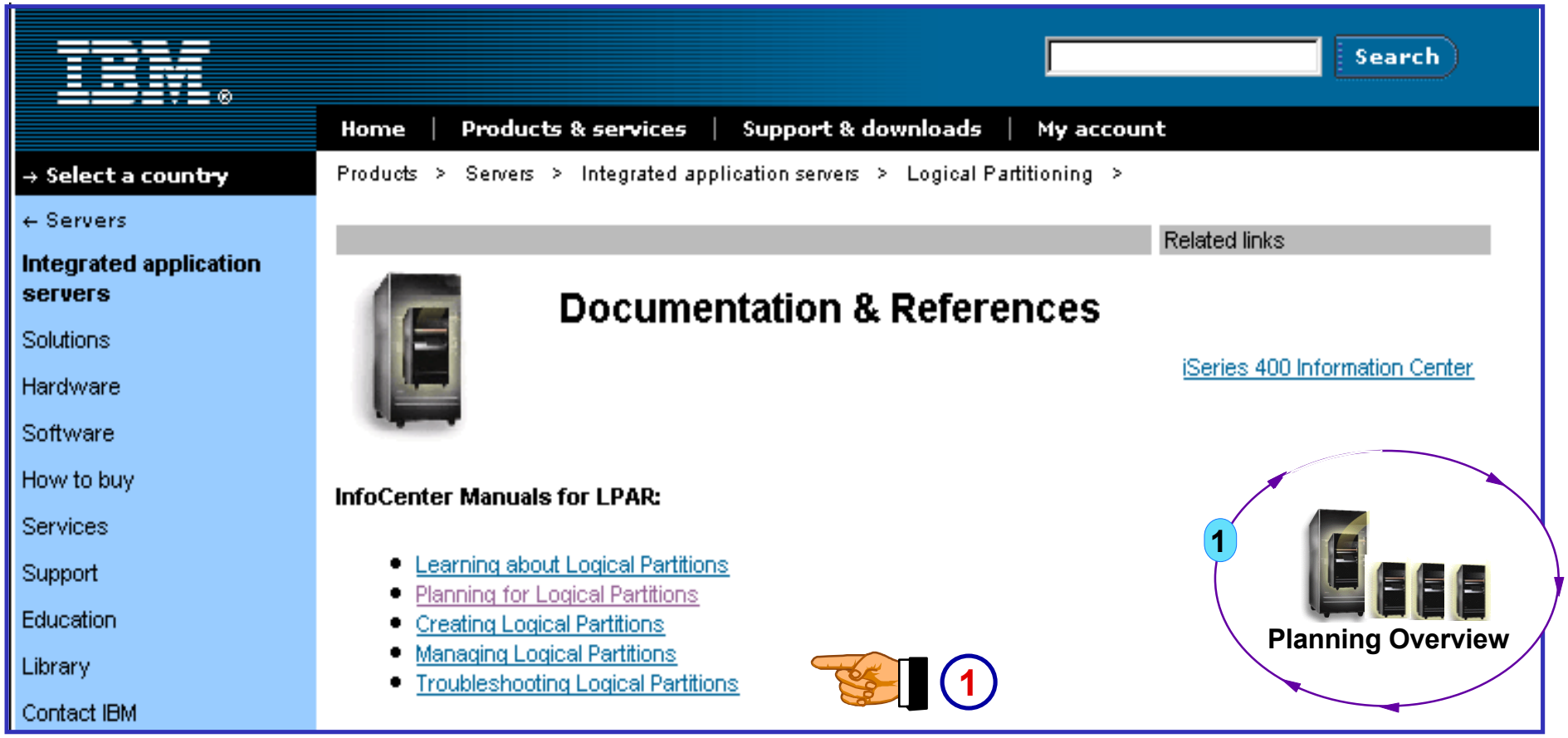


http://www-1.ibm.com/servers/eserver/iseries/lpar/

LPAR Planning Process



Documentation and References



- **Other Related Documentation:**
  - ✓ *AS/400 Logical Partition technical white paper*
  - ✓ *Slicing the AS/400 with logical partitions SG24-5439-00*
  - ✓ *Capacity Planning for logical partitions* ***SC41-3341***

http://www-1.ibm.com/servers/eserver/iseries/lpar/

iSeries 400 Information Center

http://www-1.ibm.com/servers/eserver/iseries/lpar/

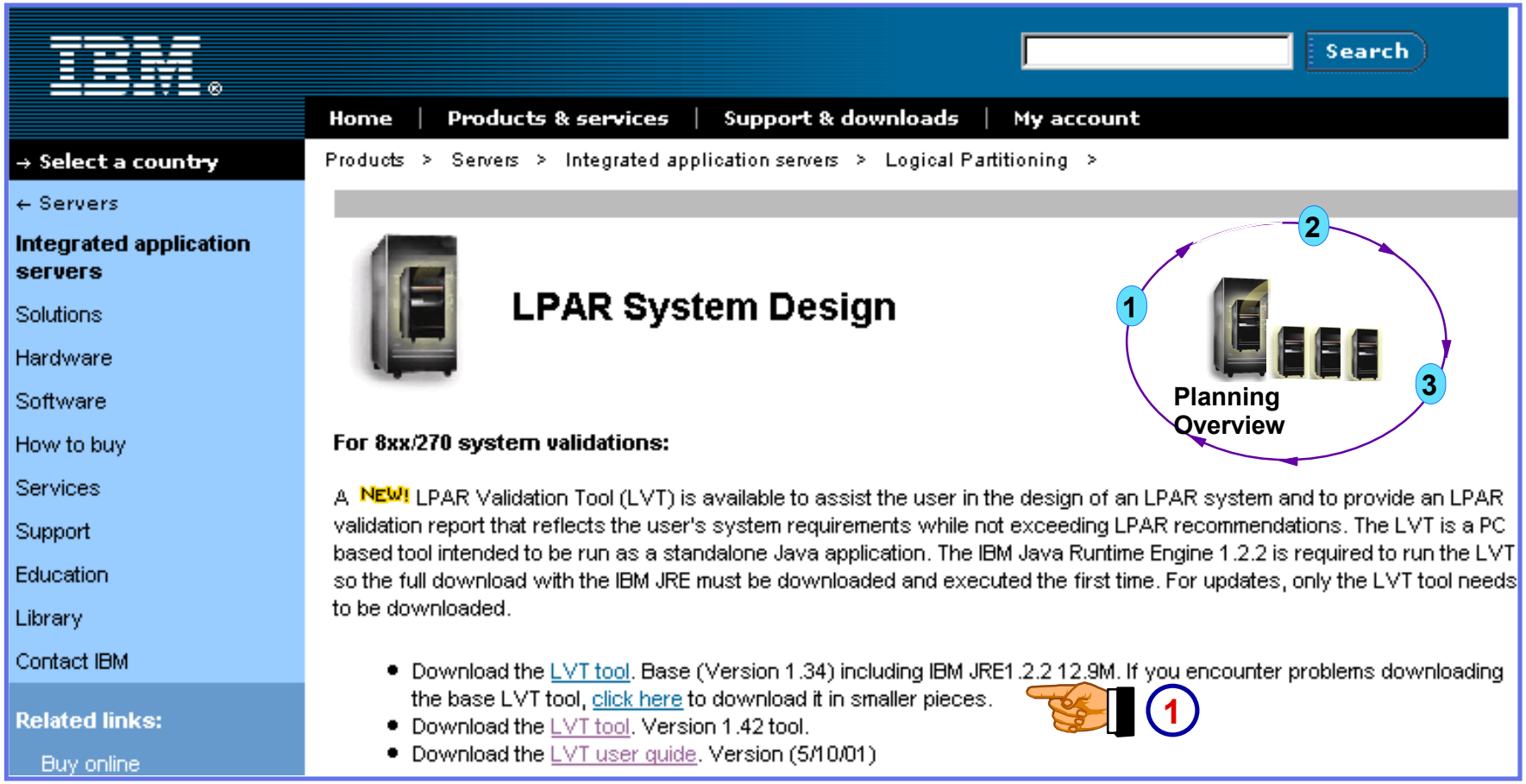
Capacity Planning Tools

- Best -1
  - Available on the AS/400 for detailed:
  - Performance planning
  - Capacity planning
  - Modeling
  - Recommendations
  - ASPs and Disk Arms
  - DASD IOPs and Arms
  - Main Storage Pools
  - Communication Resources
  - Graphical Charts

Detailed information is in the BEST/1 Capacity Planning Tool Manual (SC41-3341).

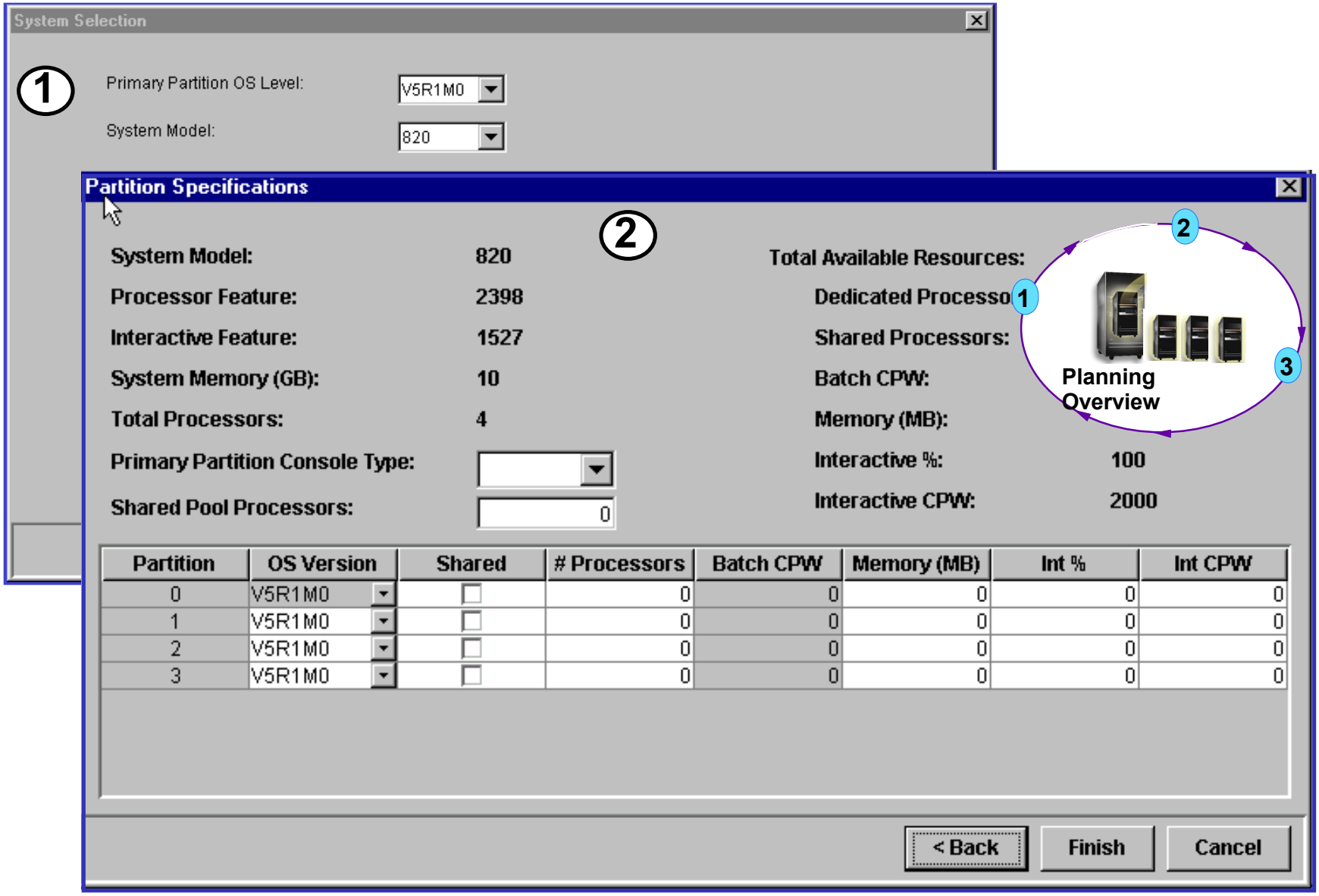
- ***Slicing the AS/400 with Logical Partitions SG24-5439-00***

LPAR Validation Tool for V5R1

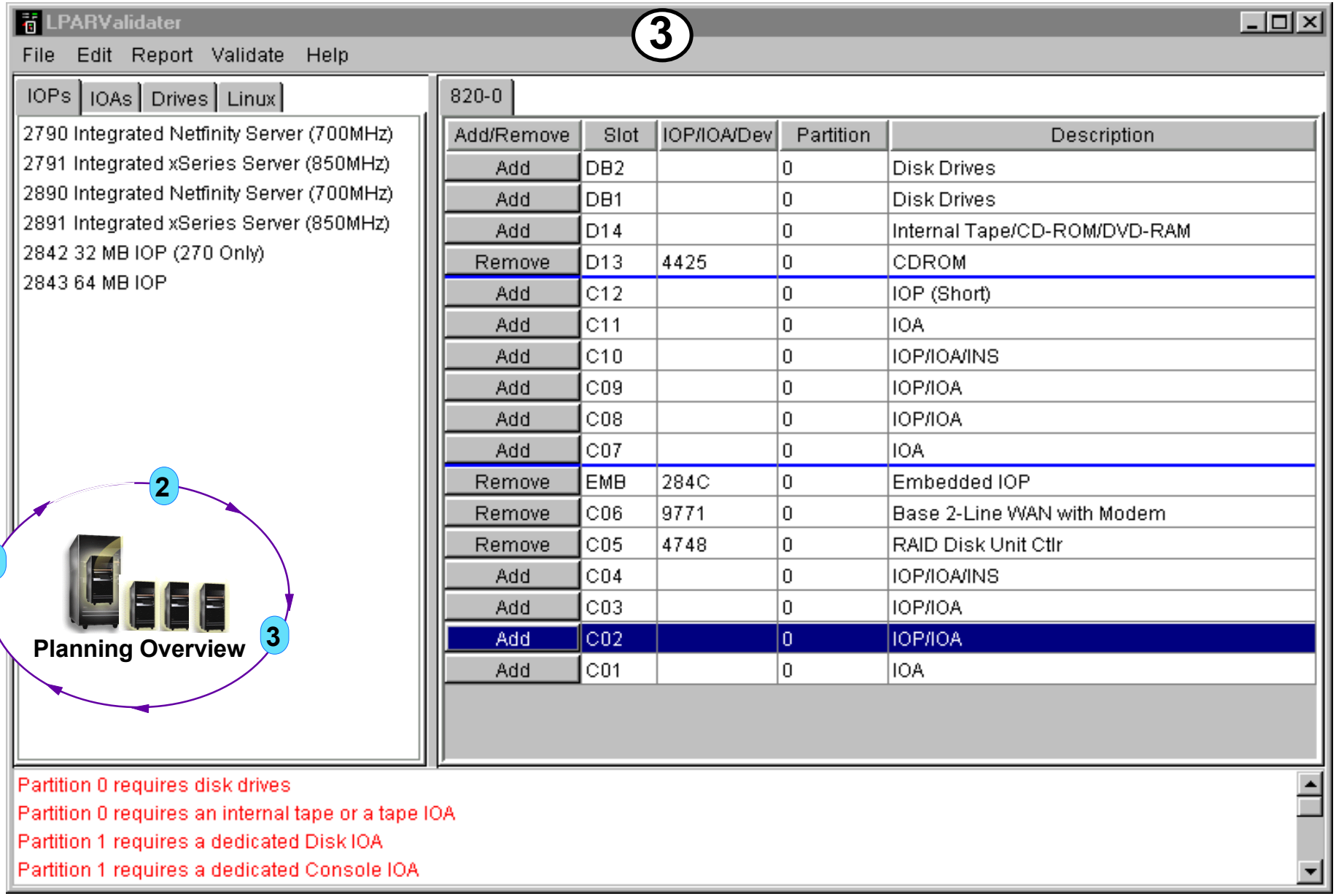


- PC-based tool to assist in planning and work sheet
- LVT user guide is in Appendix
- Configuration Planning Worksheets are in Appendix

LPAR Validation Tool Overview V5R1 (1 of 2)



LPAR Validation Tool Overview V5R1 (2 of 2)



Completing the Planning Worksheet V4R5

Guide to Completing the Configuration Planning Work Sheet

- LPARGuideMater.lwp

Step 1 Read "Collect System requirements"

Step 2 Read "Create a configuration"

Step 3 Read "Schematic of the system configured"

Step 4 Read "Send Completed Worksheet"

Configuration Planning Worksheet

- LPARworksheetMaster.lwp

Section 1 Complete "Summary of hardware resources required"

Section 2 Complete "Configuration"

Section 3 Complete "Schematic of the system configured"

Available at LPAR System Design ***http://www.as400.ibm.com/lpar/sysdesign.htm*** in:
Lotus WordPro, Microsoft Word or Viewable online HTML

Note: The above documents are subject to change/additions or replacements

Configuration Planning Worksheet

Partitions	Batch CPW of partition	Number of processors	Memory	Interactive CPW Percentage*	Virtual OptiConnect Yes/No
Partition 0 (Primary)					
Partition 1					
Partition 2					
Partition 3					
Partition 4					
Partition 5					
Total					

Slot	IOP/IOA Device	Assigned to Partition	Comments
D01-D06 D07-D12			Specify disk units to be placed in these slots
D14			Internal Tape/CD-ROM
D13	4525		CD-ROM (Required)
C12			IOP (Short)
C11			
C10			
C09			
C08			
C07			
EMBEDDED 284C			
C06			
C05			
C04			
C03			
C02			
C01			

Slot	IOP/IOA Device	Assigned to Partition	Comments		
DB1			Specify disk units to be placed in these disk slots DB3 is the top set of disks. DB1 is the bottom set on the left. DB2 is the bottom set on the right.		
DB2					
DB3					
D42			Internal Tape/CD-ROM		
D41			CD-ROM		
C15				IOA	
C14				IOP/IOA	BUS #
C13				IOA	
C12				IOA	
C11				IOP/INS	
C10				IOA	
C09				IOP/IOA	
				HSL(9691)	
C07				IOA	
C06				IOA	
C05				IOP/INS	
C04				IOA	BUS #
C03				IOP/IOA	
C02				IOA	
C01	9943		64M Base IOP	IOP (Base)	

Capacity Planning is critical

Marketing and BP can assist with the process

Filling out the Configuration Worksheets:

- ***To be sent to the TSC for verifying correct*** **configuration**
- ***For customized hardware configuration***

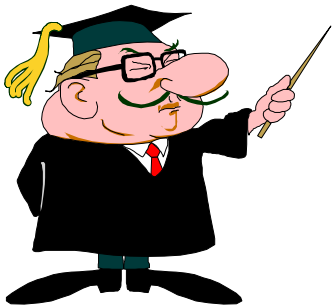
Gathering System Information

Available sources:

- WRKHDWRSC
- WRKHDWPRD
- System Service Tools (STRSST)
  - Work with system partitions
    - Display Partition Information
    - Display Allocated I/O Resources
    - Display Available I/O Resources
    - Display System I/O Resources
  - Hardware Service Manager

View and Print the System Resources to assist in filling out the Planning Worksheets or the LVT

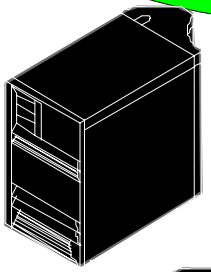
Deallocate the Resources



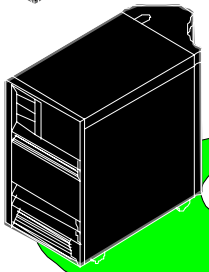
2

System Tower

From the System

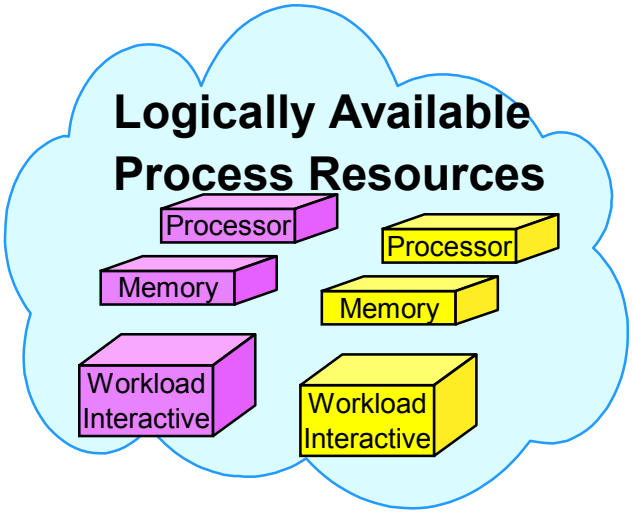


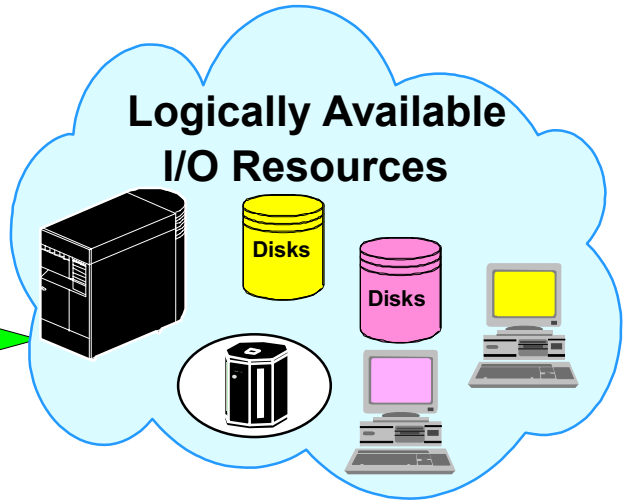
From The Primary



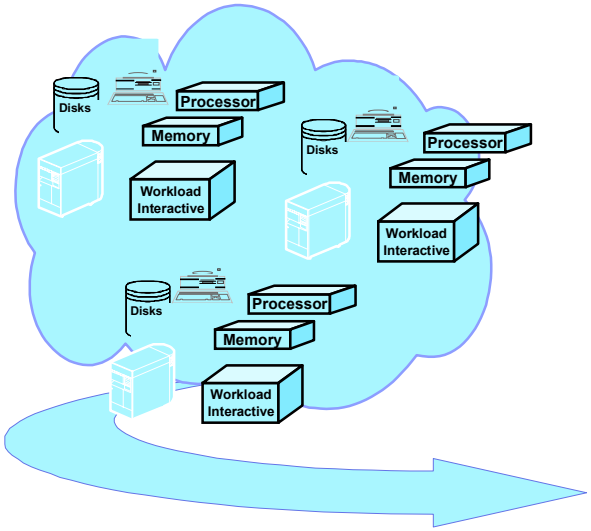
Bus Expansion Units

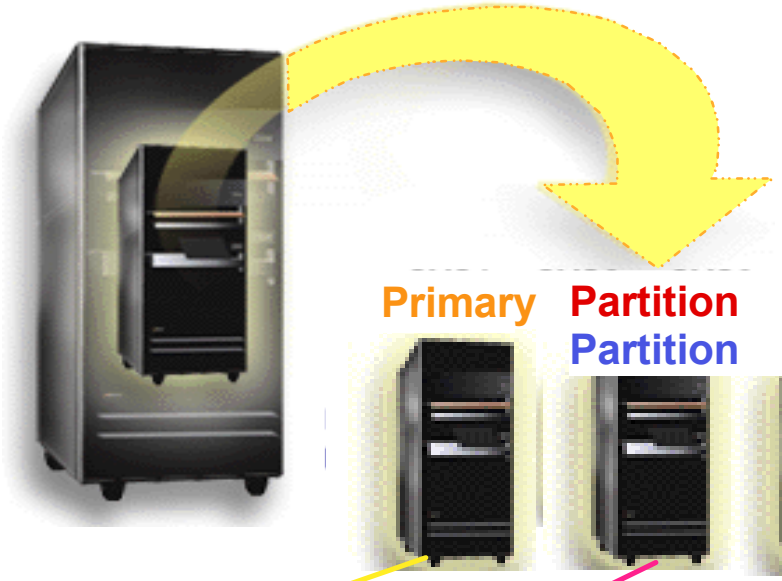
From System or Bus Expansion Units



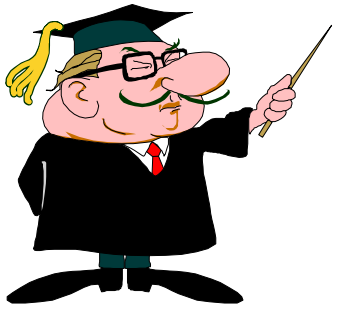


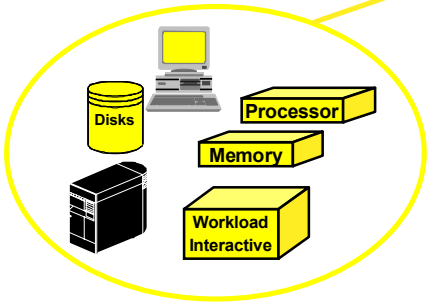
Create and Add

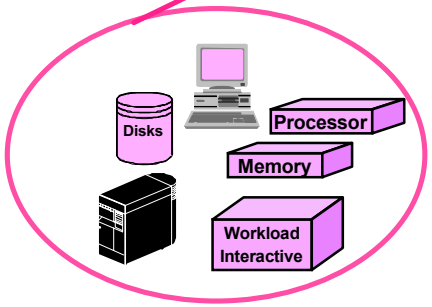


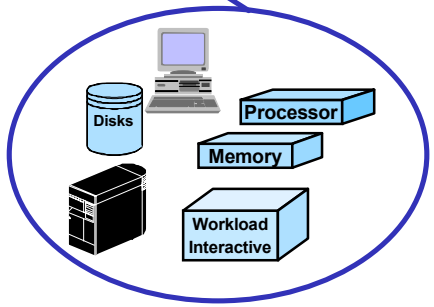


Create the Partitions
By allocating the *Available Resources*



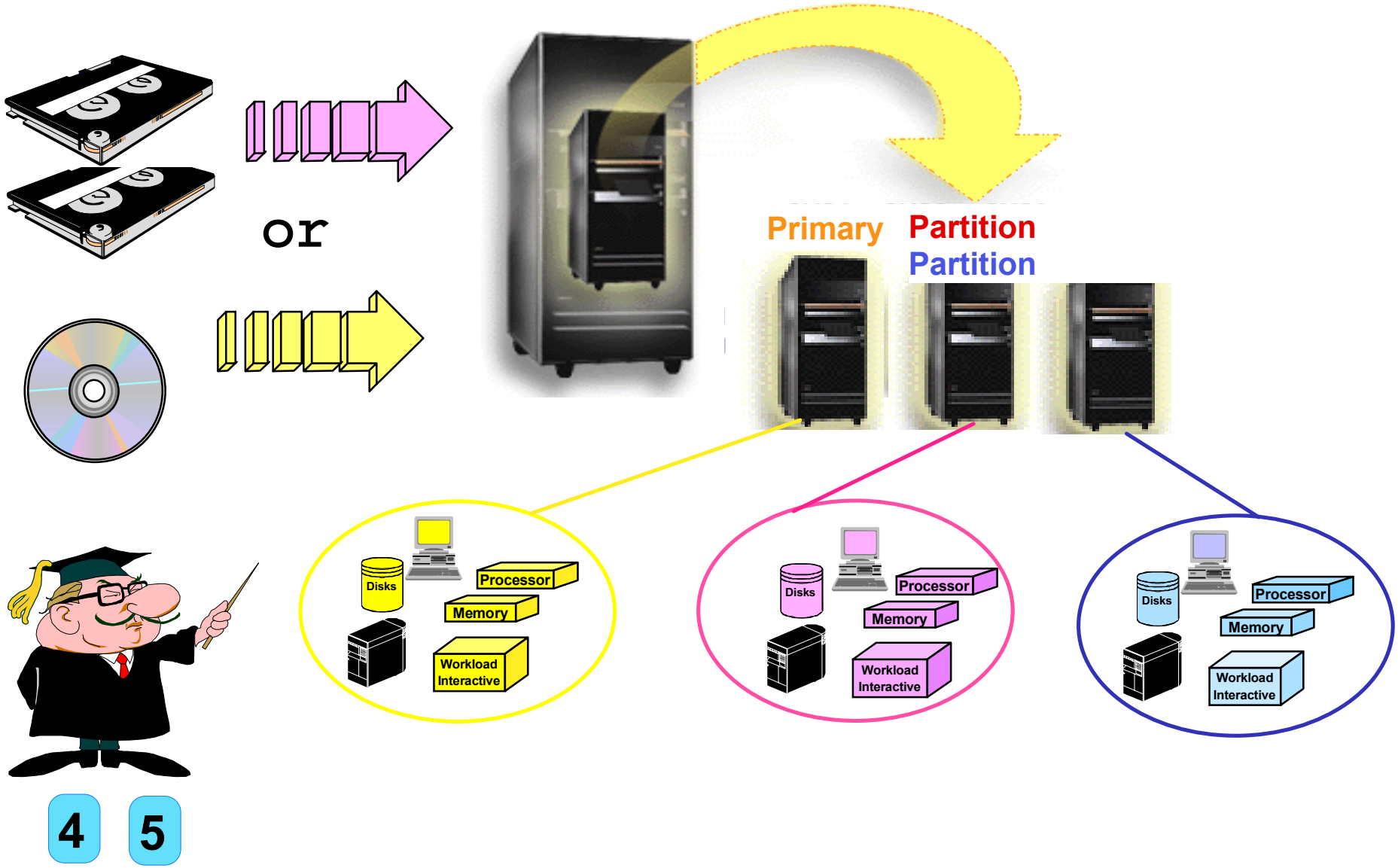




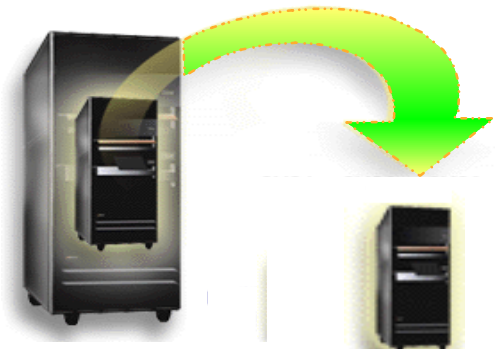


3

Installing Partitions



Install Licensed Internal Code



Install Licensed Internal Code
System: S100F14M

Select one of the following:

1. Install Licensed Internal Code
2. Work with Dedicated Service Tools (DST)
3. Define alter

①

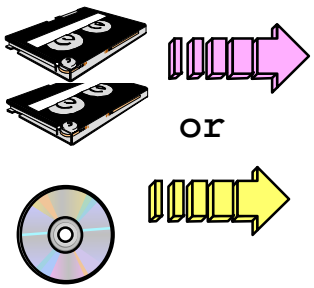
Install Licensed Internal Code (LIC)

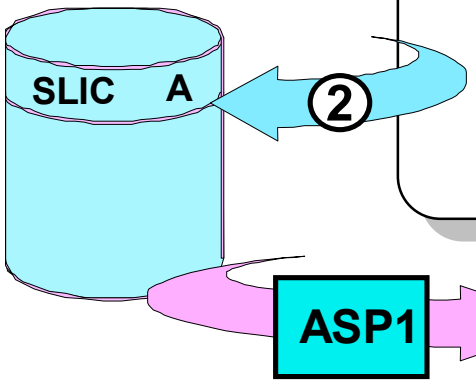
Disk selected to write the Licensed Internal Code to:

Serial Number	Type	Model	I/O Bus	Controller	Device
00-0243935	6602	030	0	1	0

Select one of the following:

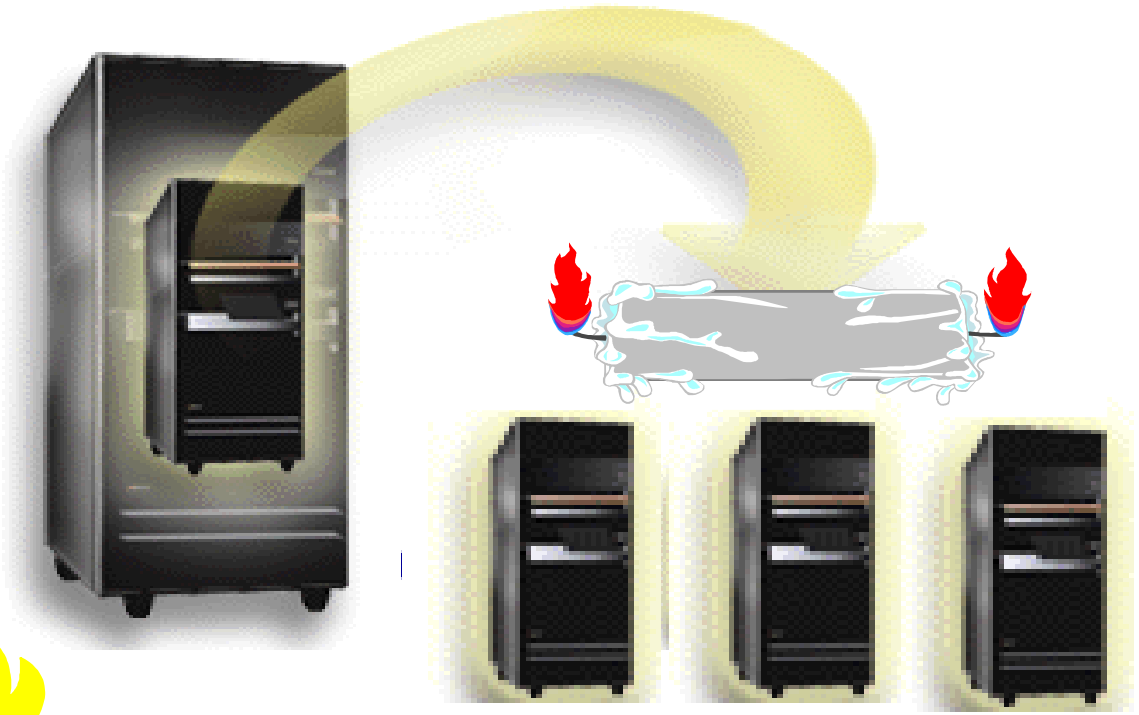
1. Restore Licensed Internal Code
2. Install Licensed Internal Code and Initialize system
3. Install Licensed Internal Code and Recover Configuration
4. Install Licensed Internal Code and Restore Disk Unit Data
5. Install Licensed Internal Code and Upgrade Load Source

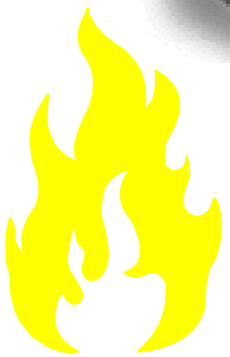




System will IPL to DST
You need to Install the Operating System and configure all other disk units to this partition

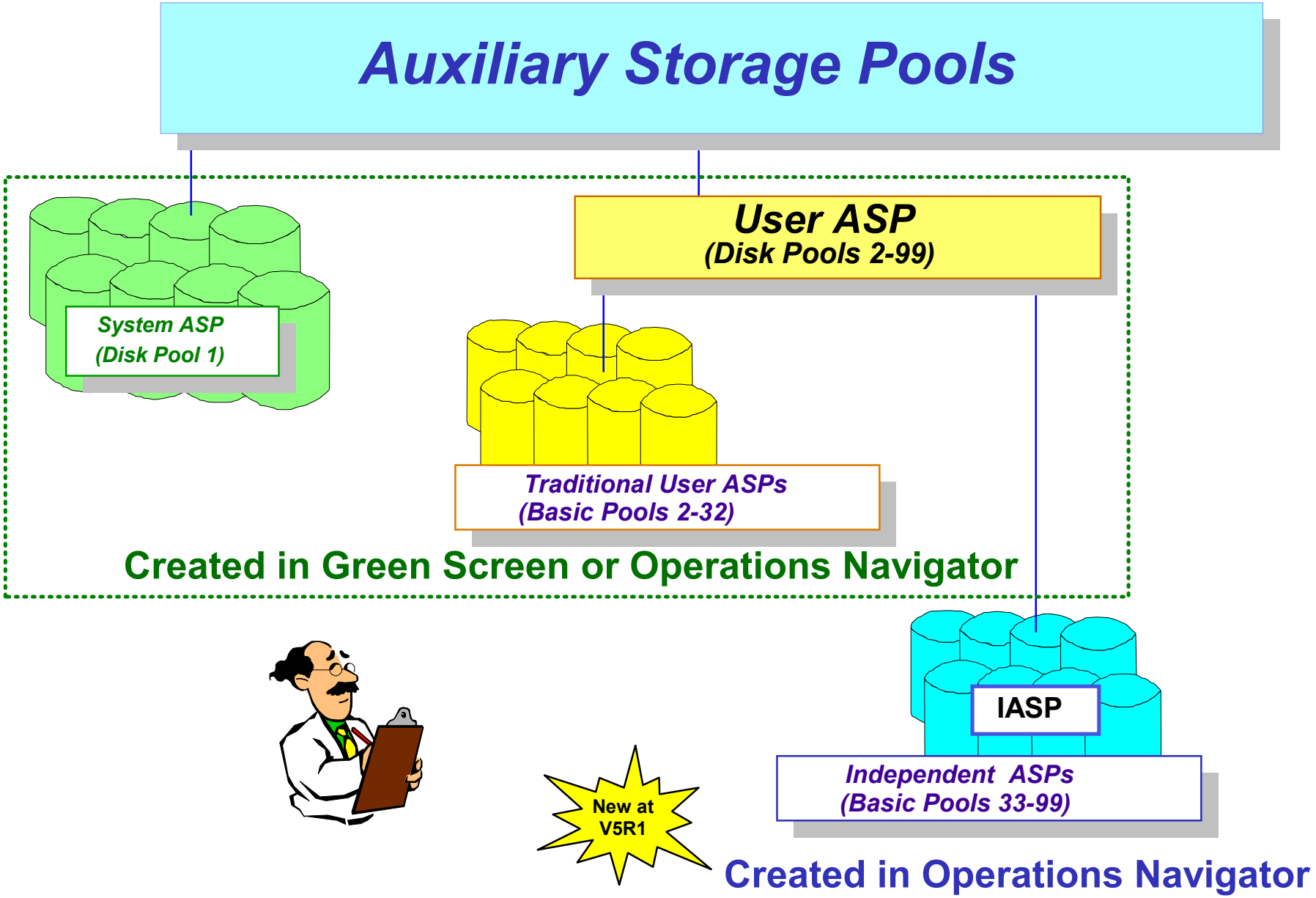
Logical Partition Limitations





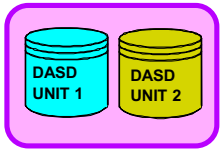
- Processor failures
- Memory failures
- Power failures
- Bus Failures

Auxiliary Storage Pools

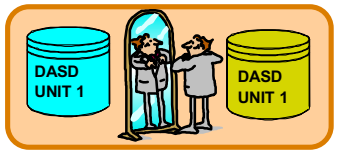


Available Protection Levels

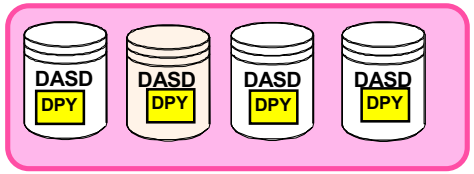
- ASP (Auxiliary Storage Pool)



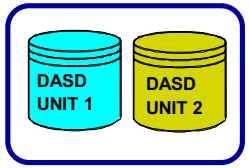
- Mirroring



- RAID

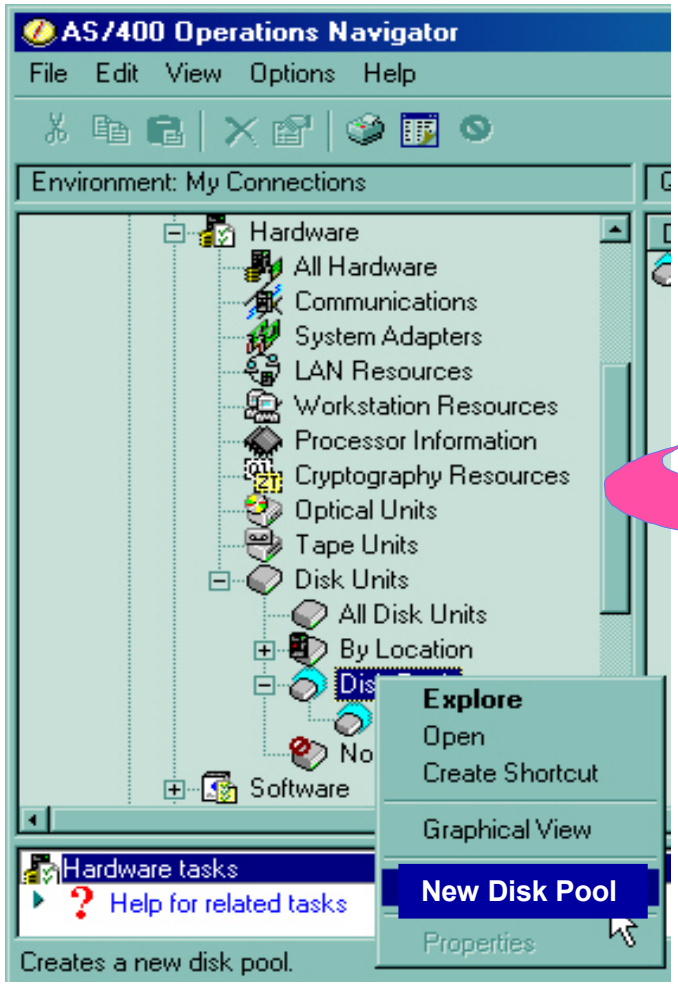


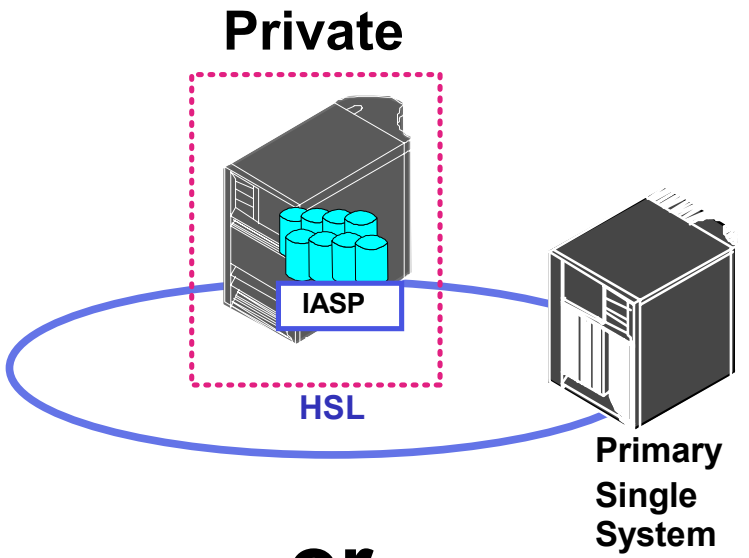
- Unprotected (no protection on a given disk)



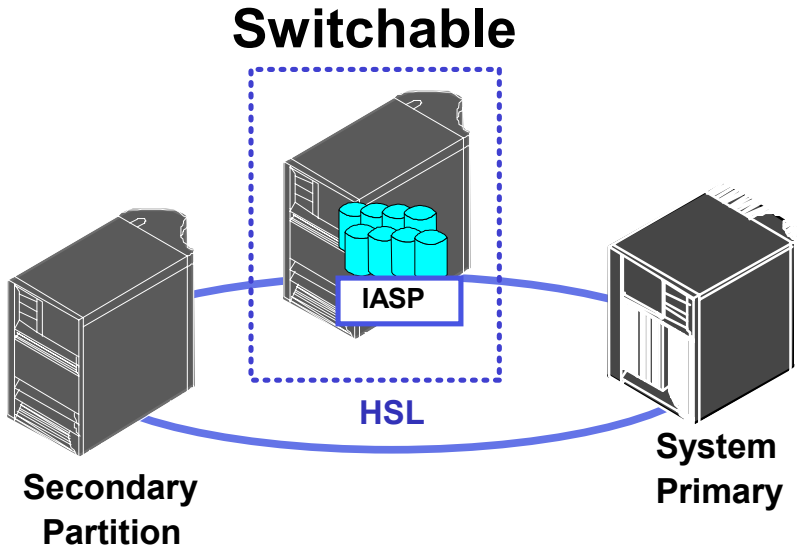
It is your responsibility to set up all levels of protection
See the Backup and Recovery Guide for details

Independent ASP Overview





or



Key Points to Remember

- **Device Parity protection:** Is a function of LIC/SLIC and is started at the IOP level. It has nothing to do with the Operating System. Supports only one disk failure at a time.
- **Mirroring:** Is a function of OS/400 and is started at the ASP level. Can support multiple disks failures.
- **Levels of Protection:** Can be configured in the same ASP
- **Independent ASP:** Can be created using Operations Navigator and functions differently from all other ASPs.