



IBM Software

IBM Tape Manager for z/VM

Tracy Dean, IBM
tld1@us.ibm.com
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Product Overview

■ Manage tapes

- Define tapes in a catalog, including:
 - Free or used
 - Retention/expiration information
 - ATL or manual mount
 - Data Security Erase
- Group tapes together into pools
 - Ownership and access control
 - Media type

■ Manage devices

- Define available devices
 - Dedicated or assignable
- Group devices together into device pools
 - ATL/VTS or manual mount
 - Any other grouping you choose (read only vs. write, location, etc.)
- Share devices with other systems

■ Manage mount requests

- Volume specific and scratch requests
 - Standard Label
 - Non-Label
 - Bypass Label Processing

Key Benefits

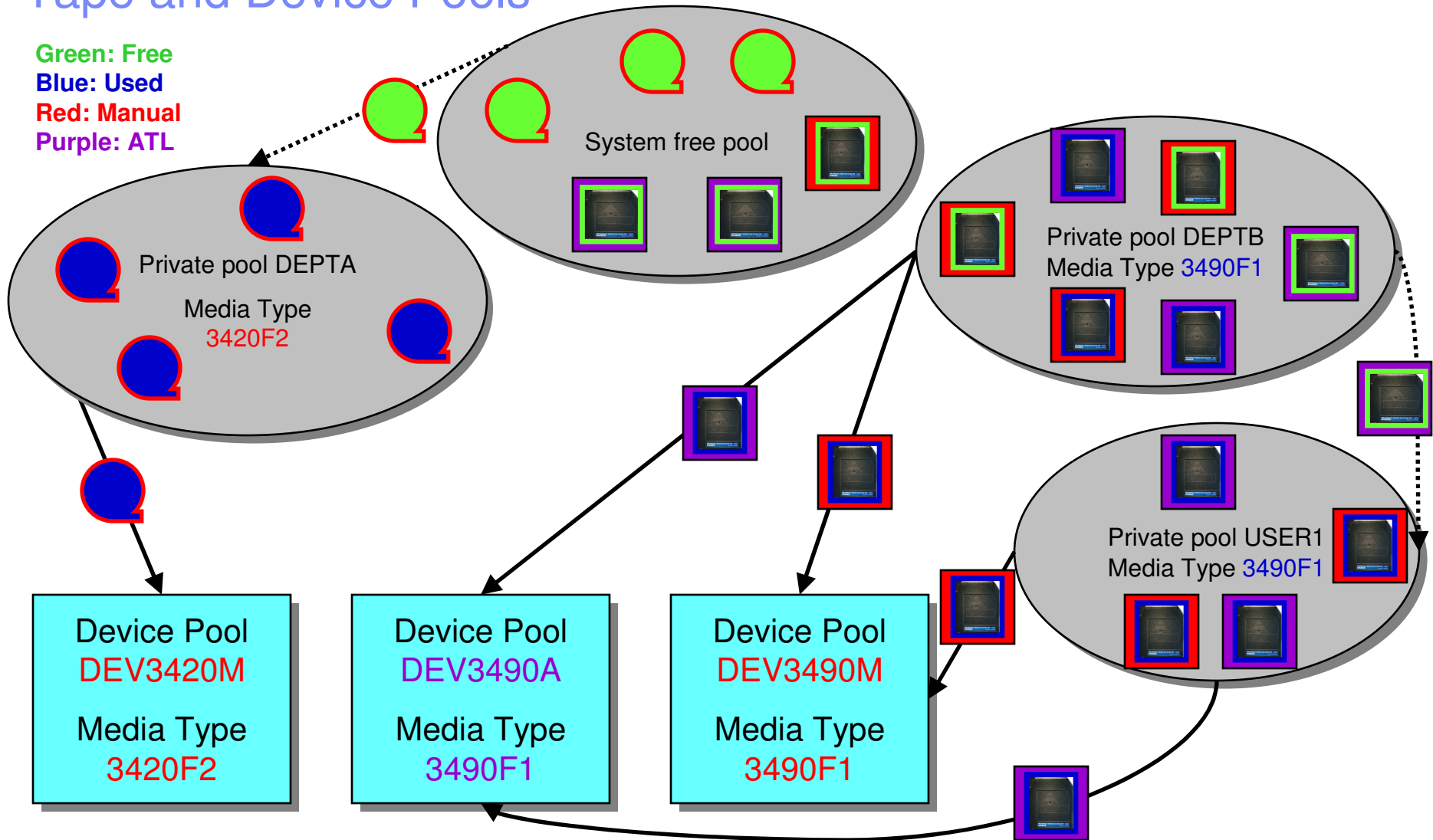
- **Effective management of tapes in ATLs**
 - Granular access control
 - Expiration processing
 - Notification for low threshold for tape resources
 - Interacts with devices through DFSMSRMS on z/VM

- **Improved accuracy of manual tape processing**
 - Automated interface to Operator for manual mounts
 - Internal label verification at attach/give and detach (SL only)
 - Read/Write verification at attach/give

- **Integrated management of z/OS and z/VM tapes using DFSMSrmm on z/OS**
 - Optionally use RMM on z/OS as the tape catalog for z/VM and z/OS tapes
 - Tapes, access control, and retention managed by the existing RMM catalog
 - Accessible via Tape Manager on z/VM
 - Tapes managed by RMM
 - Devices managed by Tape Manager

Tape and Device Pools

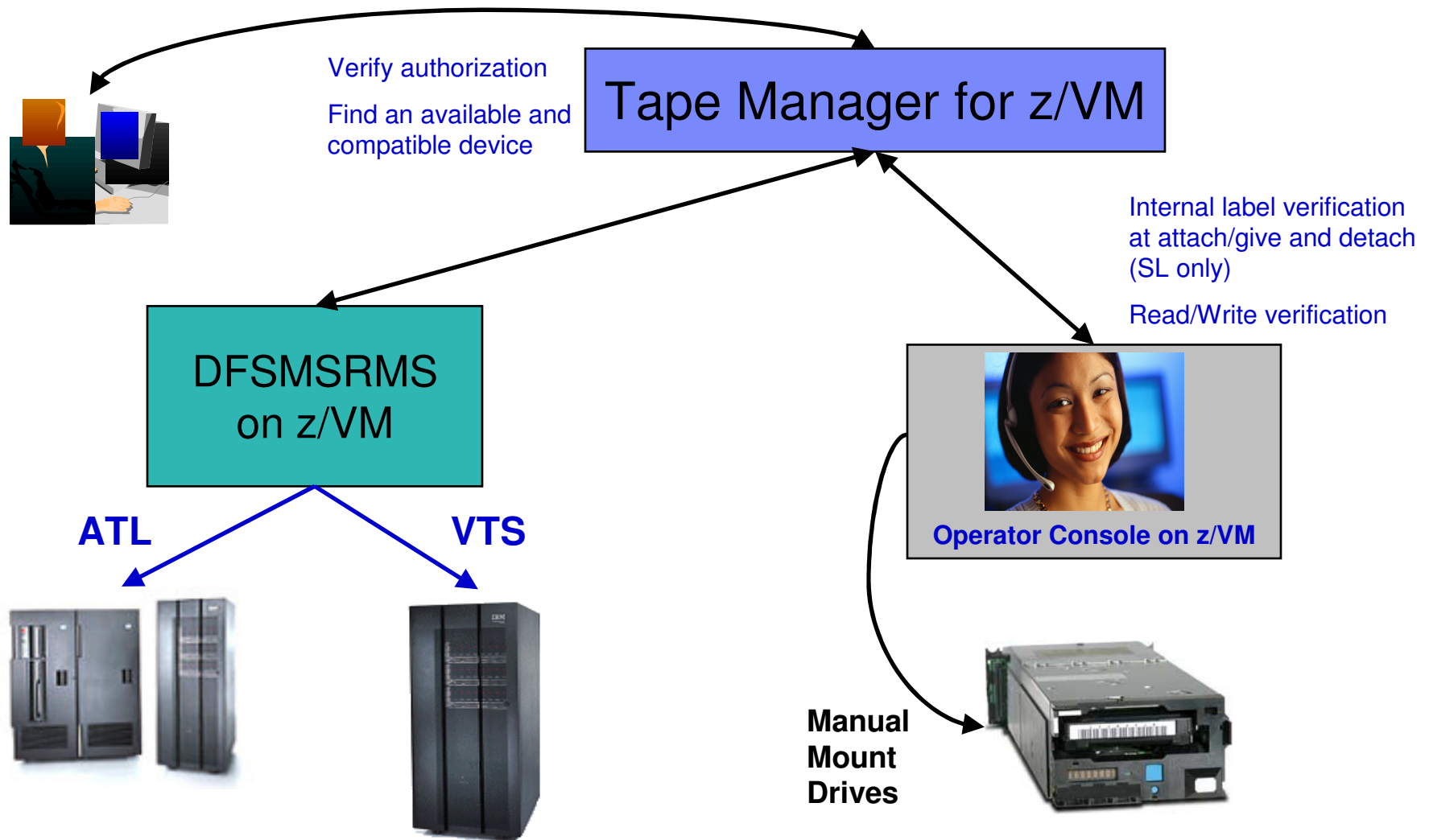
Green: Free
Blue: Used
Red: Manual
Purple: ATL



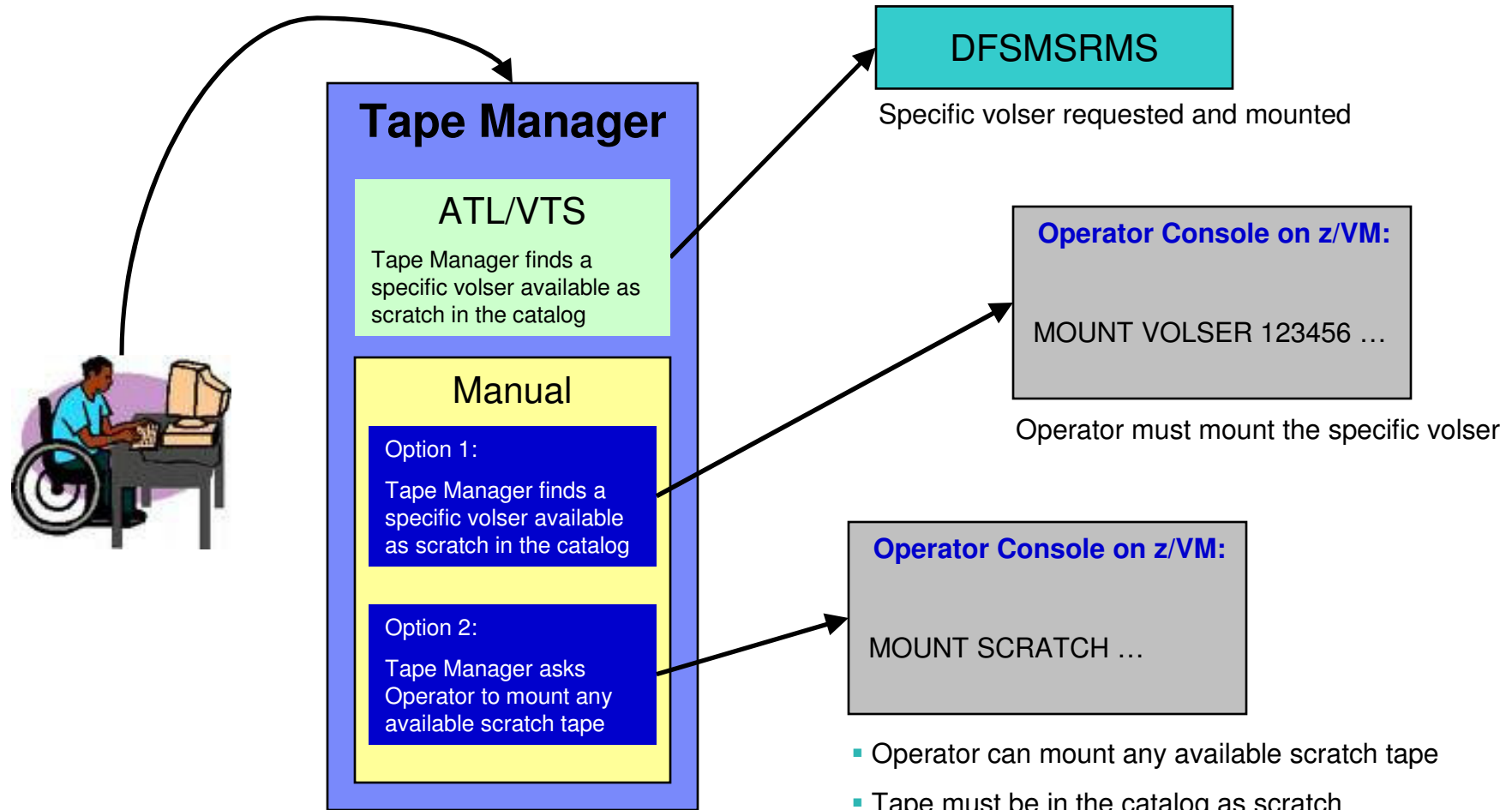
Access Control

Authority	Modify Pool Attributes and Delete Pool	Modify Tape Attributes	Add Tapes to the System Inventory (System Free Pool or Private Pools)	Delete Tapes from the System Inventory	Transfer Tapes into or out of this Pool; Delete External Tapes from this Private Pool	Modify Tapes	Read Tapes	Tape Attributes Modified Only as a Byproduct of Other Commands	Use Tape Pool as a Free Pool	Receive messages related to this pool
Sys Admin	✓	✓	✓	✓	✓			✓		
Pool Admin	✓	✓			✓	✓	✓	✓		
Tape					✓	✓	✓	✓		
Write						✓	✓	✓		
Read							✓	✓		
None										
Free									✓	
ExceptID										Threshold messages
MntID1 and MntID2										Mount messages, query and cancel mounts

Tape Mount Support: ATL, VTS, Manual



Scratch Mount Requests in Standard Mode



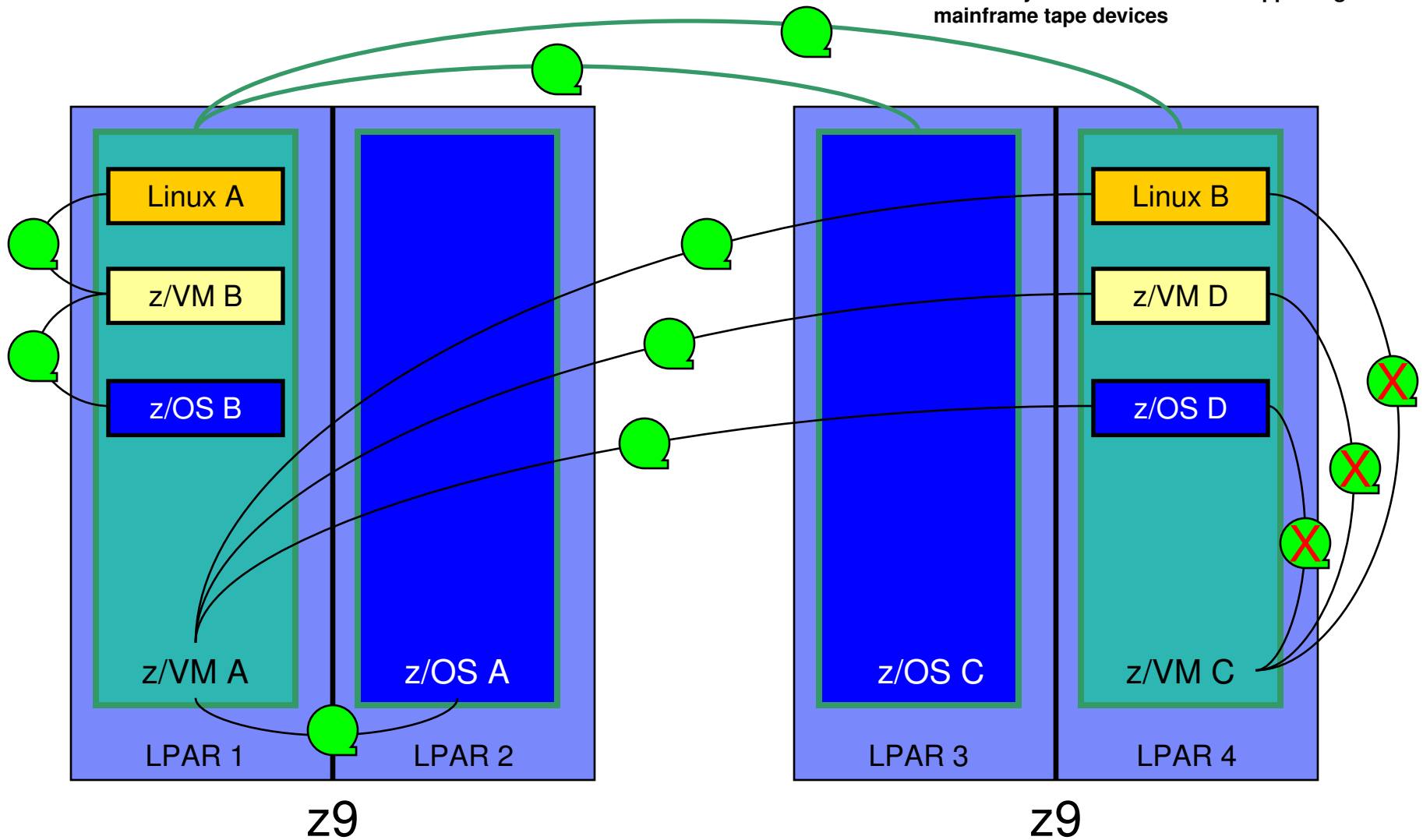
Option 1 vs. Option 2 controlled by GENSCRATCH statement in SYS CONFIG

Data Security Erase (DSE)

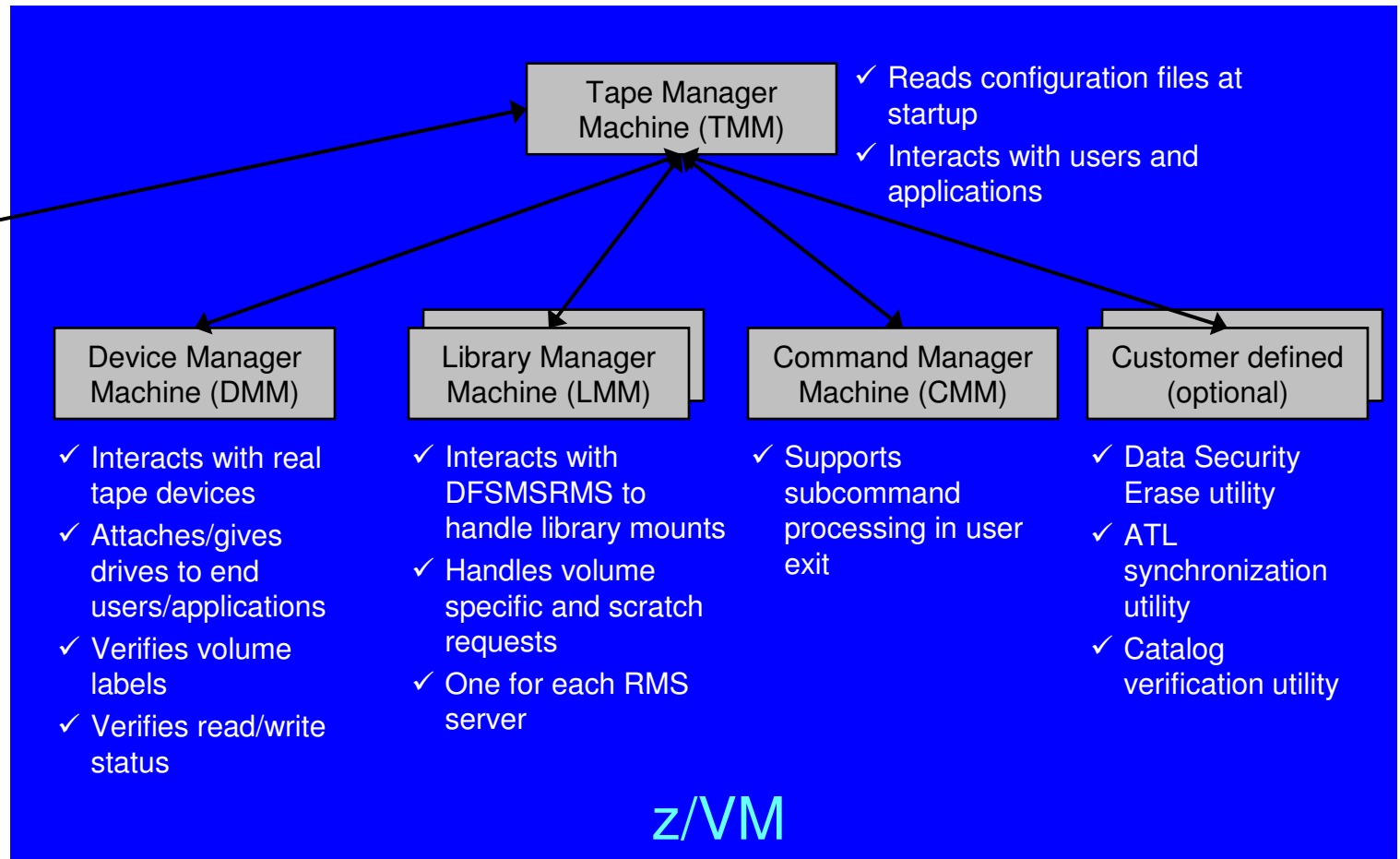
- **Erase (sensitive) data before tape is reused**
- **Option to enable DSE at tape pool or individual tape level**
 - DSE flag included in each catalog entry
- **Tape marked as DSE-ready when it is freed**
- **DSE process executed on a separate user ID**
 - Started manually or as part of Operations Manager schedule
- **Queries the catalog to find all tapes with DSE-ready flag on**
- **Mounts each tape**
 - Verifies volume label if possible
 - Erases tape
 - Turns off DSE-ready flag in catalog
 - Tape is now available for scratch unless its HOLD flag is on

- z/VM systems with IBM Tape Manager
- z/OS systems with IBM Automated Tape Allocation Manager
- Linux systems with software supporting mainframe tape devices

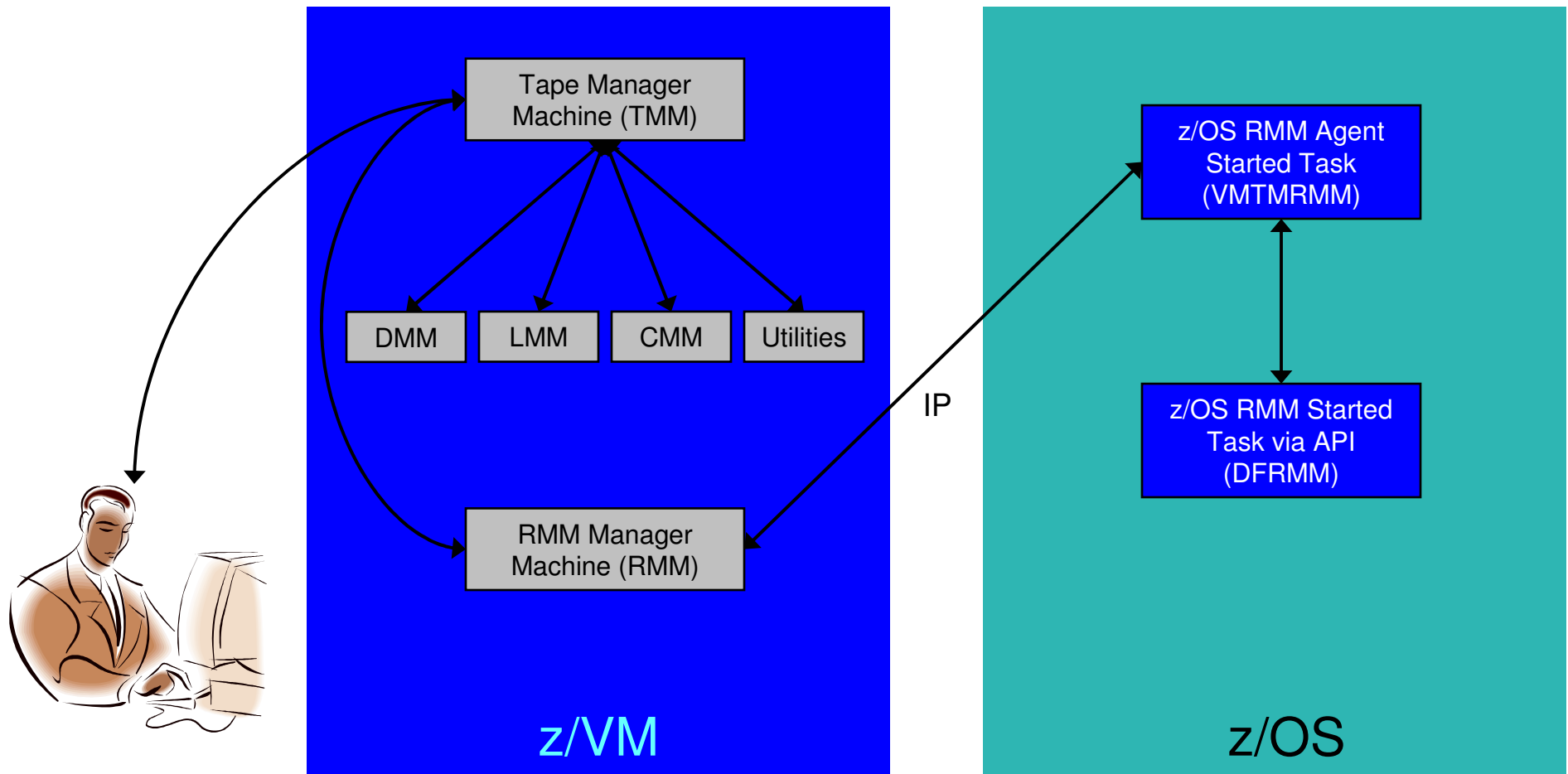
Sharing of Tape Devices



Tape Manager in Standard Mode



Tape Manager in RMM Mode



Tape Manager Summary

- **Automate daily tape operations**
 - Manage mount requests
 - Control tape access
 - Perform label verification
 - Expire tapes
- **Efficiently manage tapes and tape drives**
 - Share devices
 - Control access to individual tapes in an ATL
 - Erase sensitive data before tape is reused
- **Improve productivity**
 - Support manual and ATL mount requests
 - Notify and interact with Operator on behalf of user for manual mounts
 - Perform label verification before and after tape use
 - Verify read/write attribute on manual mounts