

IBM z Systems

IBM Tape Manager for z/VM

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Agenda

- Product overview and benefits
- Single LPAR configuration
- Multi-LPAR configurations:
 - Share tape catalog with RMM on z/OS
 - Share tape catalog with Tape Manager on other z/VM systems
 - Share tape devices with z/OS
- Summary

IBM z/VM Management Solutions

- Security
 - RACF and zSecure Manager for z/VM
- Performance monitoring
 - OMEGAMON XE on z/VM and Linux
 - Performance Toolkit for z/VM
- **Backup and recovery**
 - Backup and Restore Manager for z/VM
 - Tape Manager for z/VM
 - Spectrum Protect (aka Tivoli Storage Manager)
- Automation and operational monitoring **New V1.6**
 - Operations Manager for z/VM **GA May 20**
 - Including integration with existing monitoring and alert systems
- Interactive provisioning and system resource management
 - IBM Wave for z/VM

IBM Infrastructure Suite for z/VM and Linux

- IBM bundle/suite
- Tools needed to manage the z/VM and Linux on z Systems infrastructure
 - Wave for z/VM
 - OMEGAMON XE on z/VM and Linux
 - Operations Manager for z/VM
 - Backup and Restore Manager for z/VM
 - Order Tape Manager for z/VM separately if plan to back up to tape
 - Spectrum Protect (aka Tivoli Storage Manager) Extended Edition
- Discounted price as a bundle
- Website:
 - <http://www.ibm.com/software/products/en/ibm-infrastructure-suite-for-zvm-and-linux>
- DeveloperWorks Wiki – **Videos of demos**
 - <http://ibm.biz/Bd4up3>



Managing Tapes and Tape Devices
IBM Tape Manager for z/VM

Product Overview

- **Manage tapes**
 - Define tapes in a catalog
 - Free or used
 - Retention/expiration information
 - ATL/VTs 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 ATL or VTS
 - Granular access control
 - Expiration processing
 - Notification for low threshold for tape resources
 - IBM libraries supported through DFSMSRMS on z/VM
 - STK libraries supported through STK Host Software Component for VM, or STK VM Client
 - EMC libraries supported through standard CCW interface
- Improved accuracy of manual tape processing
 - Granular access control
 - Automated interface to Operator for manual mounts
 - Internal label verification at attach/give and detach (SL only)
 - Read/Write verification at attach/give

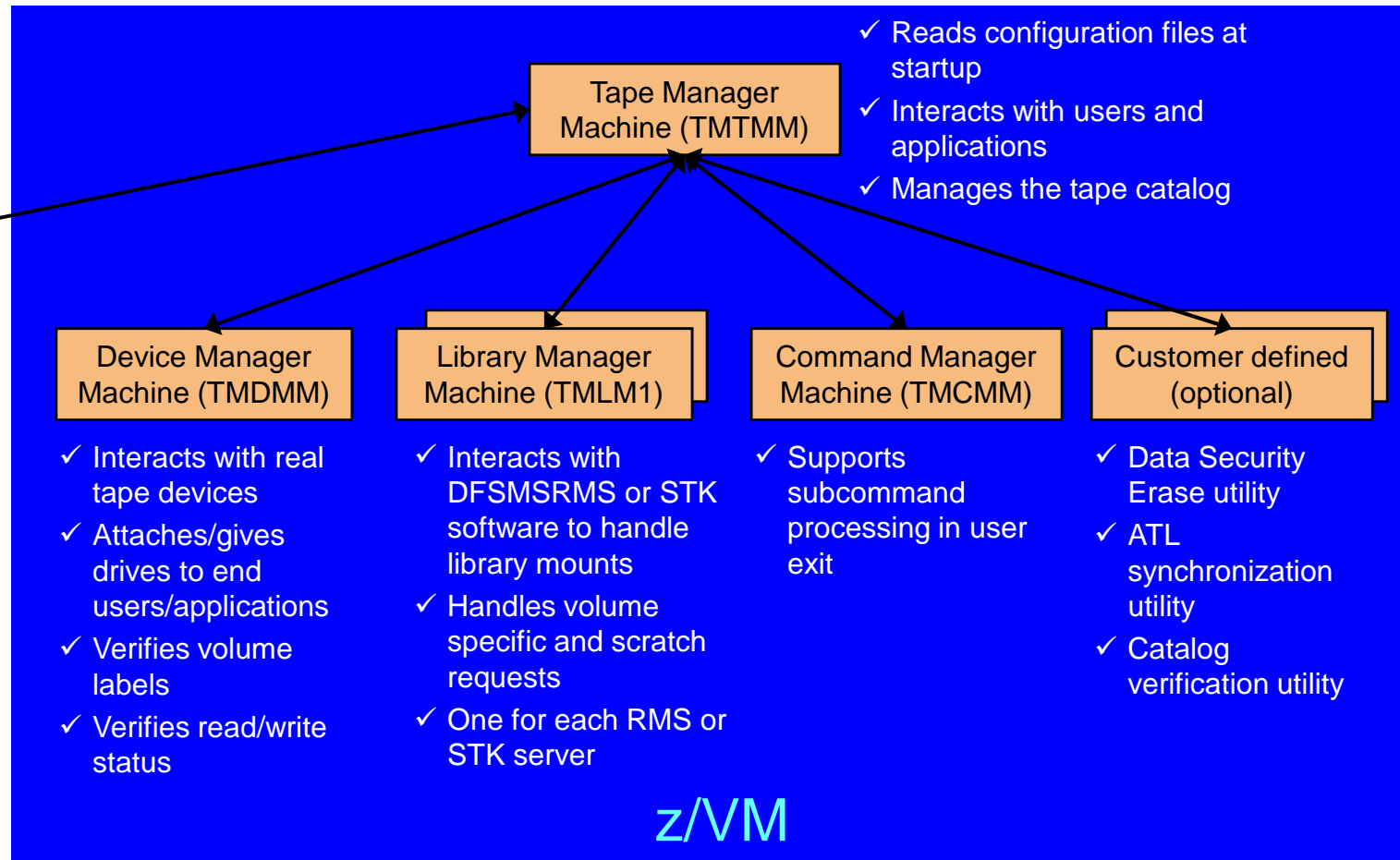
Key Benefits

- 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 – sharing devices with z/OS is discussed later
 - Not available for STK libraries

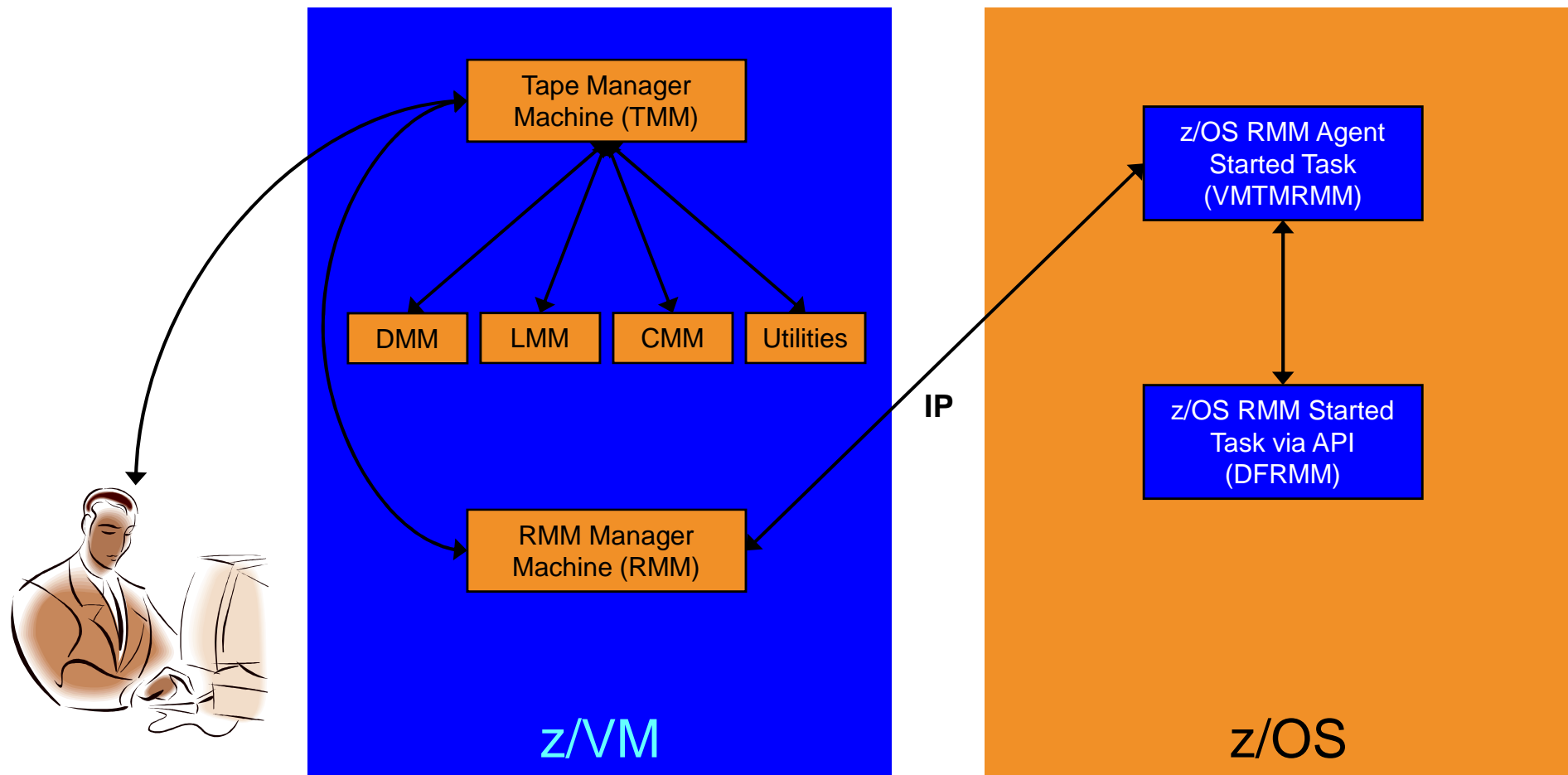
Data Security Erase (DSE)

- Erase (sensitive) data before tape is reused
- Option to enable DSE at tape pool or individual tape level
 - DSE-enabled flag included in each catalog entry
- DSE-enabled tapes marked as DSE-ready when freed
- Tape Manager DSE utility (TMDSE) executed on a separate user ID
 - Started manually or automatically with Operations Manager
 - Queries the catalog to find all tapes with DSE-ready flag on
 - Mounts each tape
 - Verifies volume label if possible
 - Configuration option to perform DSE on NL tapes or not
 - Erases tape
 - Turns off DSE-ready flag in catalog
 - Tape is now available for scratch unless its HOLD flag is on

Tape Manager in Standard Mode



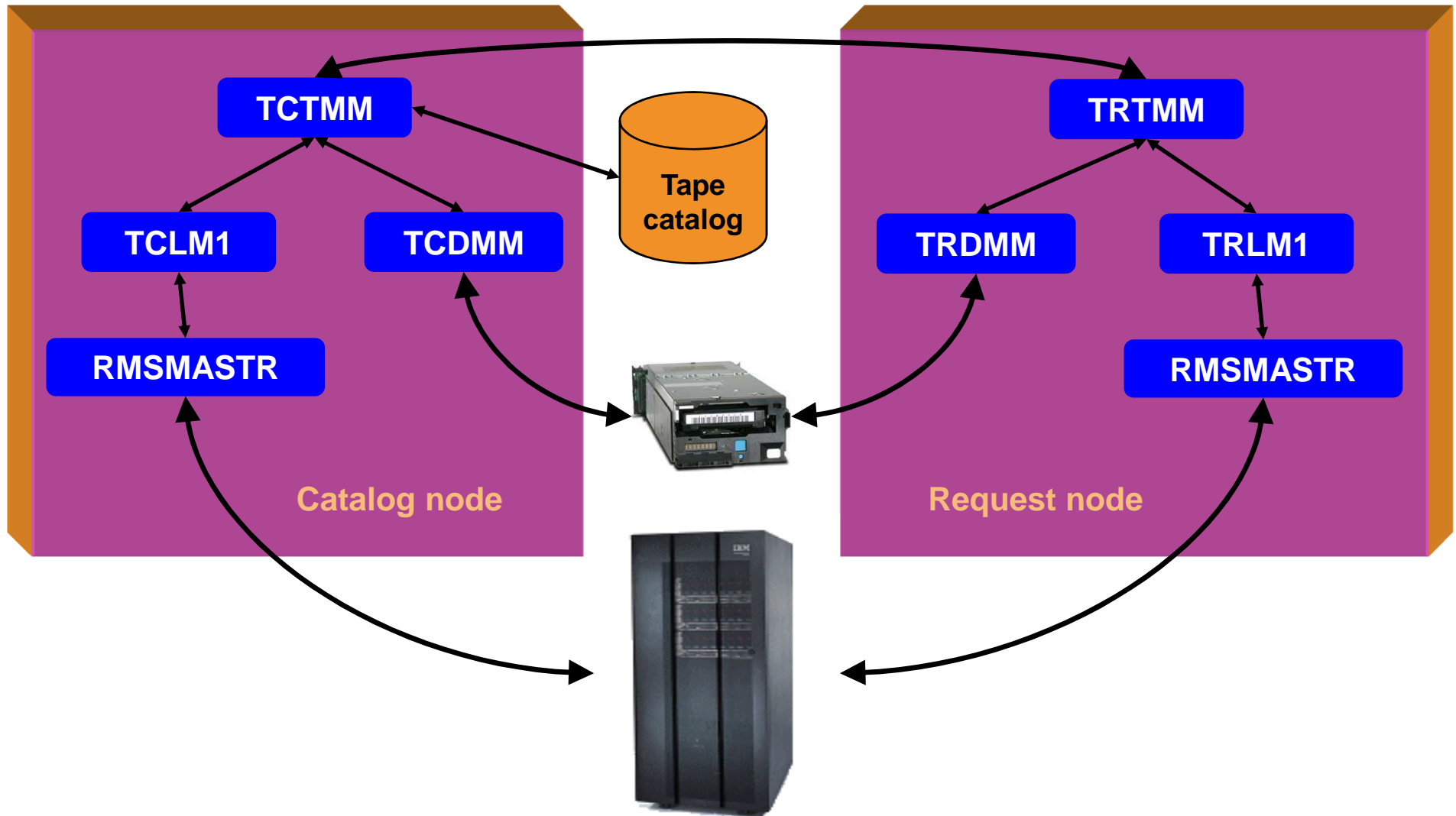
Tape Manager in RMM Mode



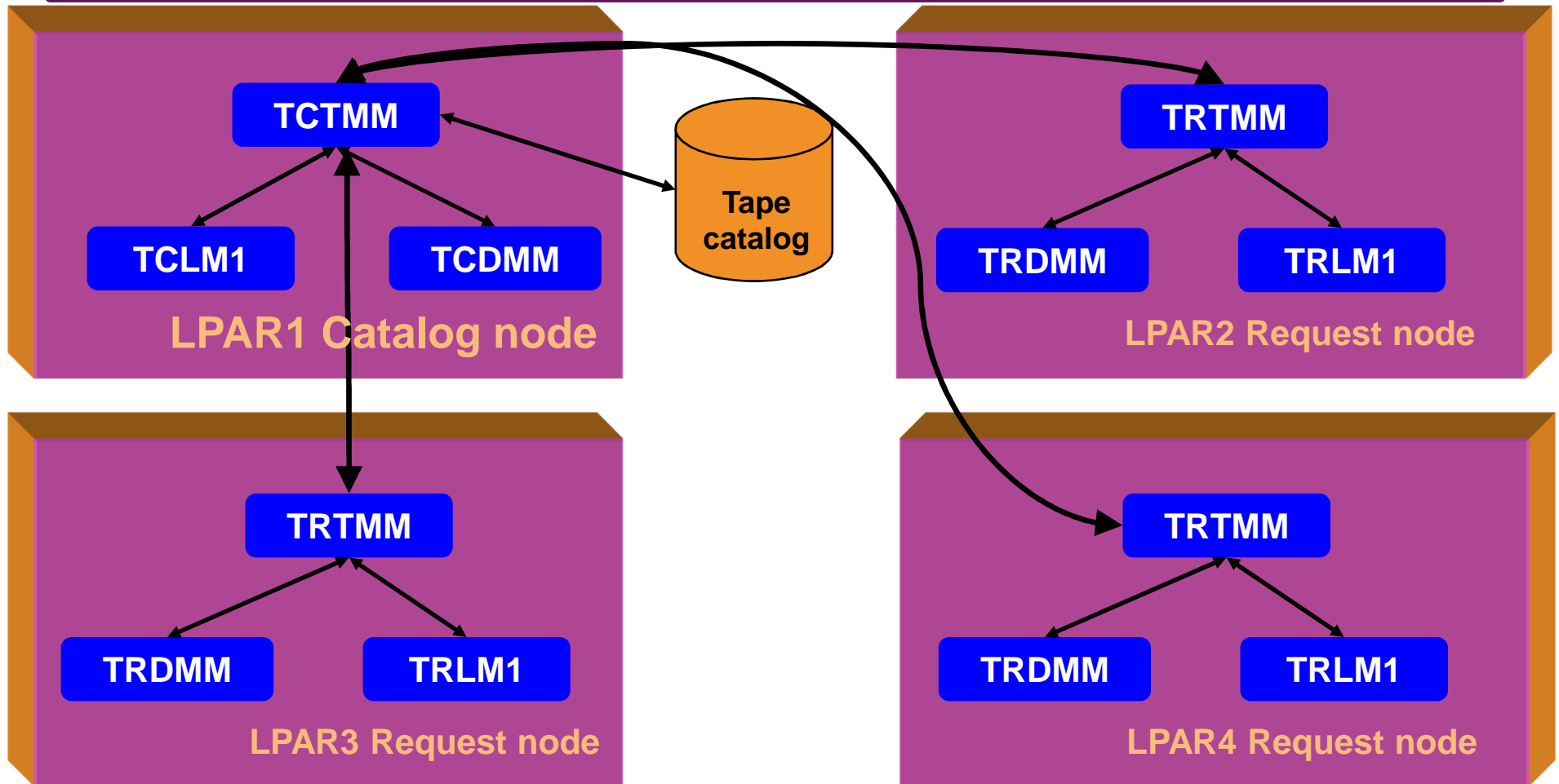
Support for **One Tape Catalog** Across **Multiple z/VM** Systems

- One “catalog node”
 - Responsible for the tape catalog contents
- Multiple “request nodes”
 - Manage requests on the local system
 - Communicate with catalog node to read or update catalog data
- One catalog used by multiple z/VM systems
 - No longer need to create a catalog on each z/VM system, each with its own range of volsers
 - All z/VM systems share one catalog
- IP used for communication between systems
- Does not apply if using RMM on z/OS for z/VM tape catalog

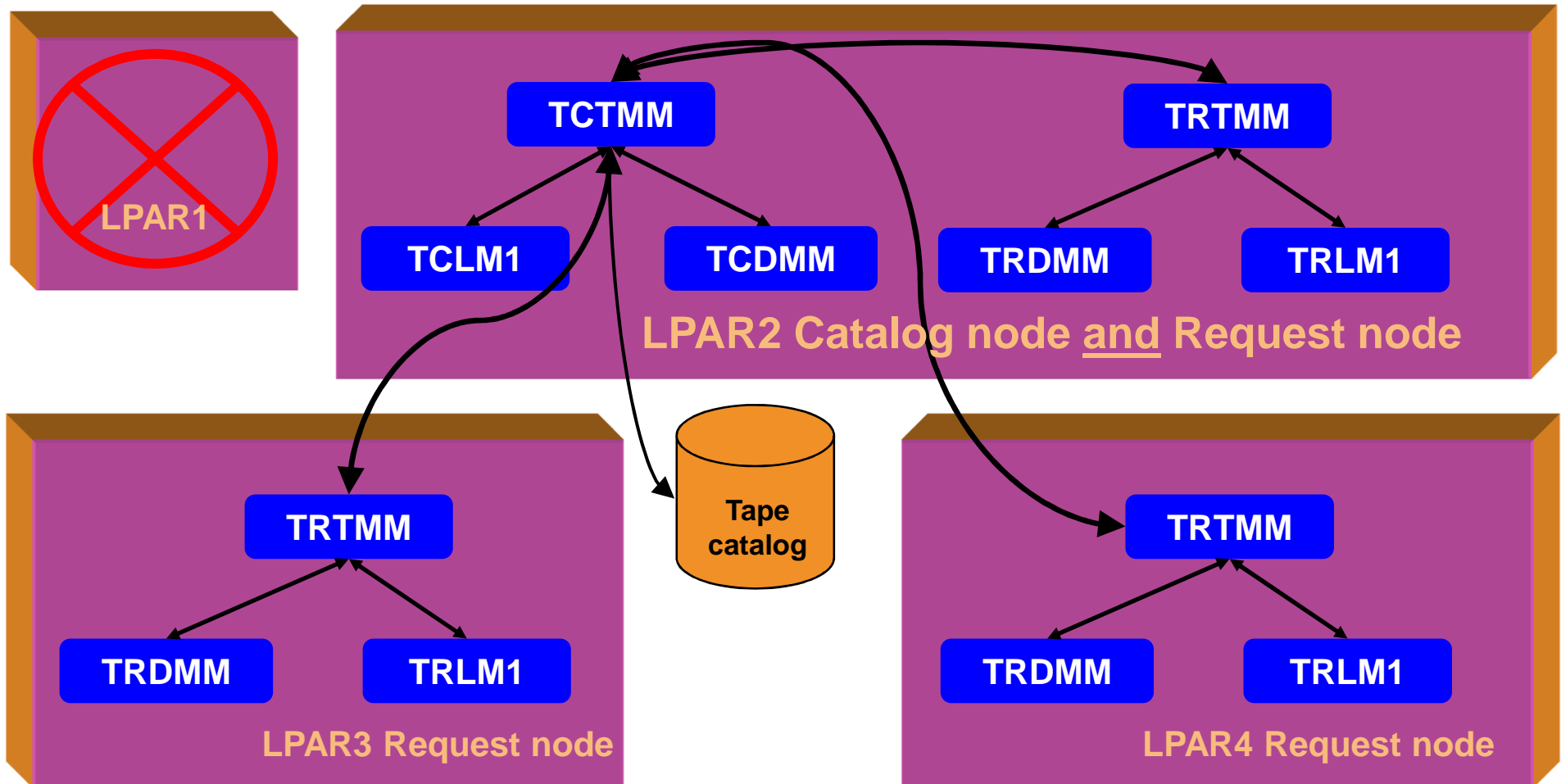
Tape Manager for z/VM – Shared Catalog Environment with 2 LPARs



Tape Manager for z/VM – Shared Catalog Environment with 4 LPARs Simplified View



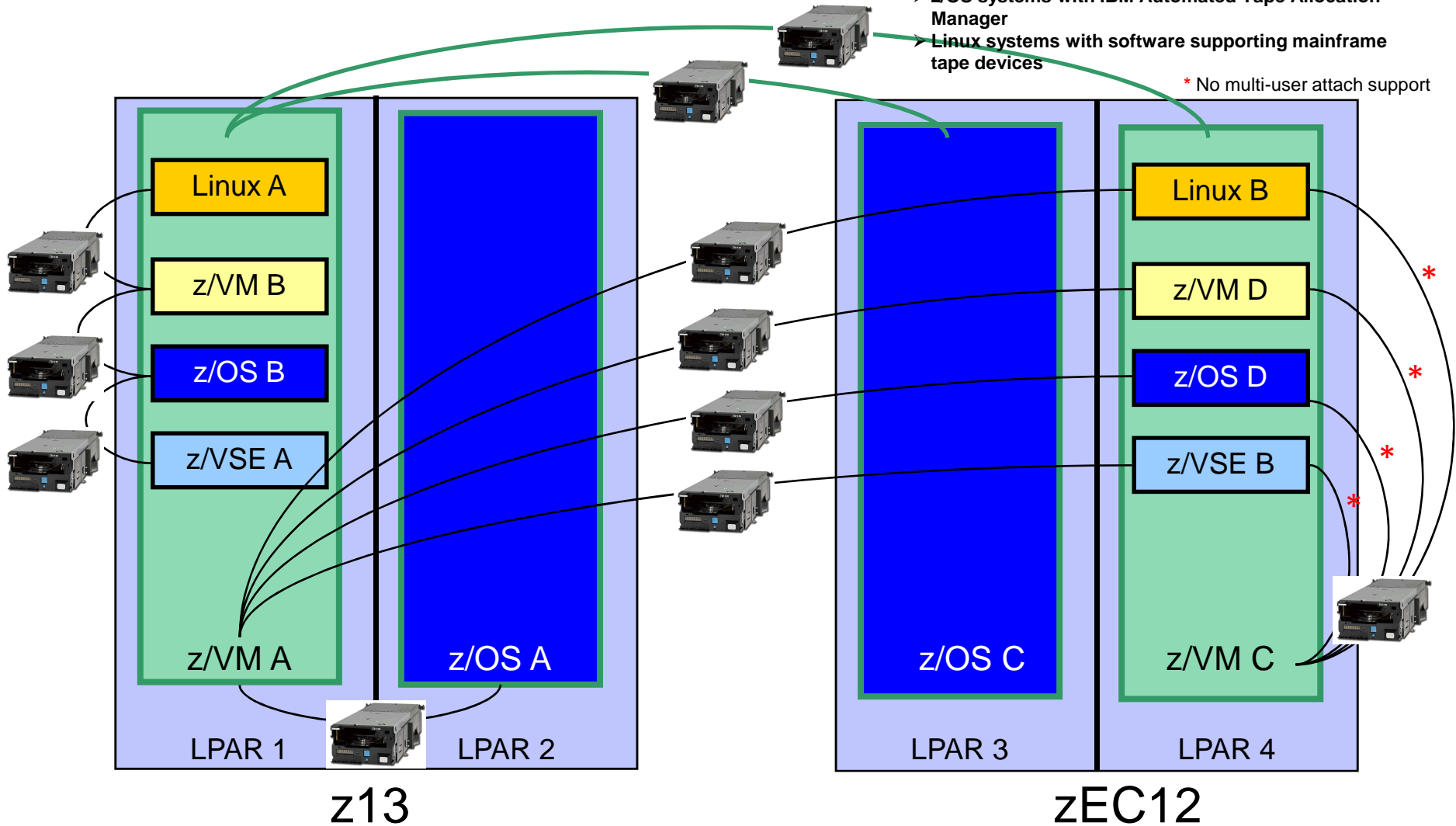
Tape Manager for z/VM – Shared Catalog Environment with 4 LPARs
Catalog Node Down for Maintenance



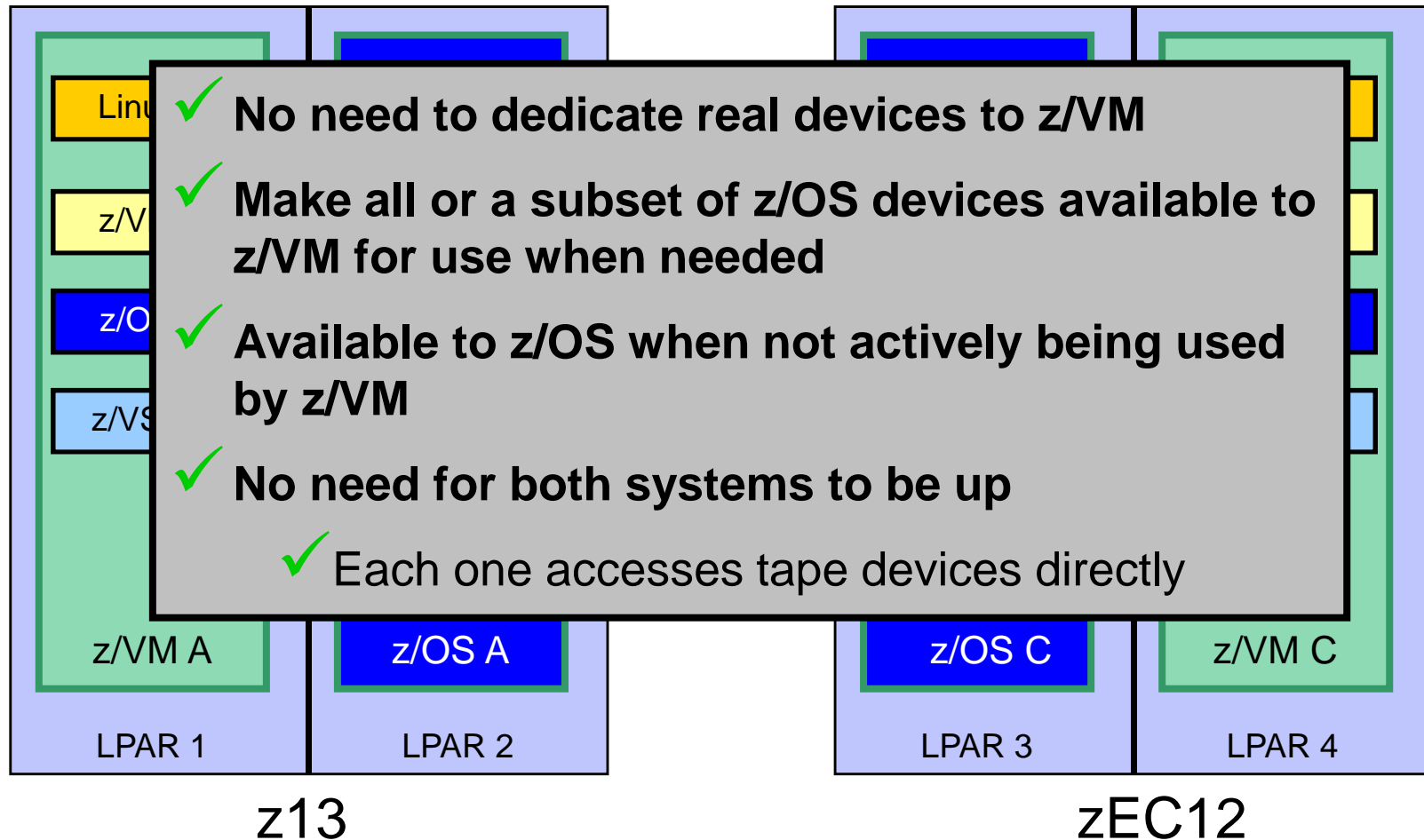
Dynamically Share (Real) Tape Devices

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

* No multi-user attach support



Dynamically Share (Real) Tape Devices



Tape Manager for z/VM - Summary

- Use Tape Manager to
 - Manage and share devices
 - Manage tape volumes
 - Access control
 - Retention
 - Data Security
 - Improve accuracy of mount requests

धन्यवाद

Hindi

多謝

Traditional Chinese

감사합니다

Korean

Спасибо

Russian

Gracias

Spanish

شكراً

Arabic

Thank
You

English

Obrigado

Brazilian Portuguese

Grazie

Italian

多谢

Simplified Chinese

Danke
German

Merci

French

நன்றி

Tamil

ありがとうございました

Japanese

ขอบคุณ

Thai