



IBM Software

IBM Operations Manager for z/VM

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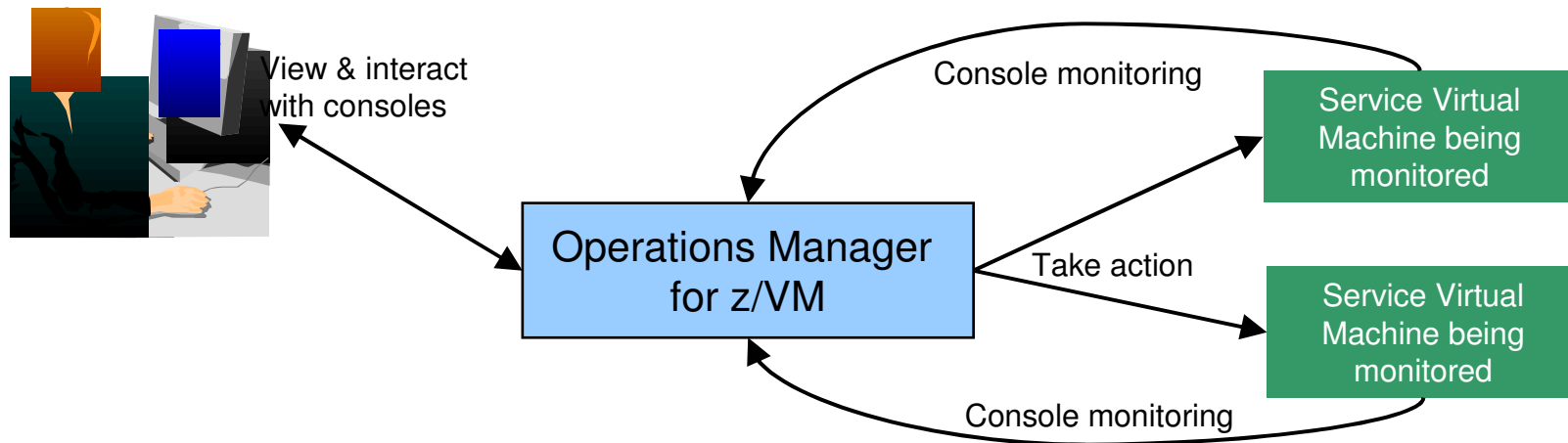
Agenda

- **Overview**
- **Features and functions**
- **Product architecture**
- **Demo**
- **Summary**

Operations Manager for z/VM

- Increase productivity
 - Authorized users view and interact with monitored virtual machines without logging onto them
 - Multiple users view/interact with a virtual machine simultaneously

- Improve system availability
 - Monitor virtual machines and processes
 - Take automated actions based on console messages
 - Reduce problems due to operator error



Automation

Routine activities done more effectively with minimal operations staff

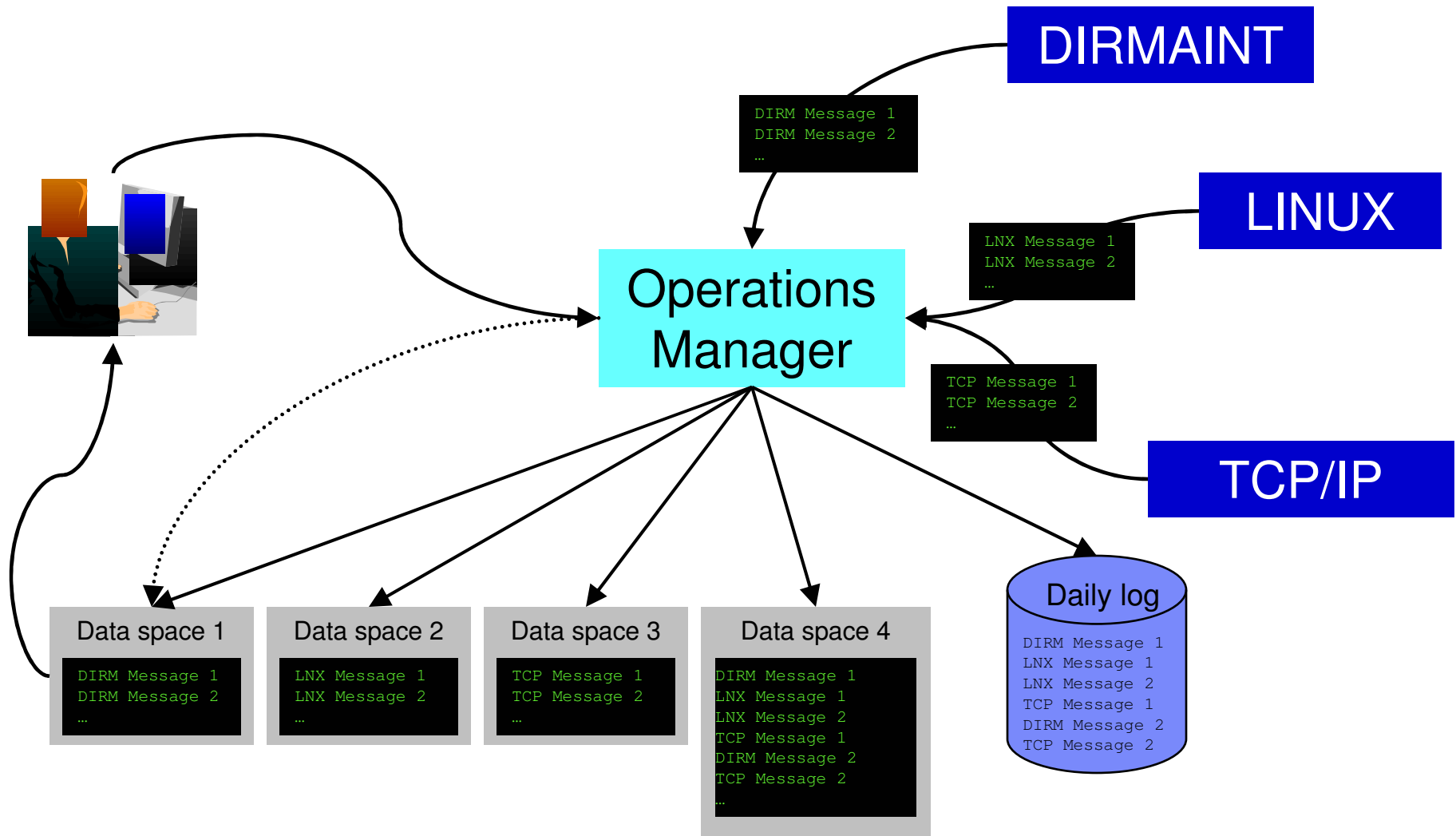
Integration

Fulfill take action requests from OMEGAMON XE on z/VM and Linux

Features and Functions

- **Monitor service machines**
- **View and interact with monitored consoles from authorized user IDs**
- **Schedule events/actions**
- **Dynamic configuration**
- **Separation of access control**

Monitor Service Machines



Monitor Service Machines

- **Define rules to**
 - Scan console messages for text matching
 - Includes column, wildcard, and exclusion support
 - Take actions based on matches
- **Multiple rules can apply to one message**
 - Rules processed in order of definition in the configuration file
 - FINAL option available to indicate no additional rules should be evaluated

In Operations Manager configuration file:

```
DEFRULE NAME (CPREAD), MATCH (*HCP*150A*CP*), MCOL (001:020), ACTION (CPREAD)
```

View and Interact with Consoles

- **Authorized users view a single server console or a group of server consoles**
 - Multiple users can view the same console simultaneously

- **Fullscreen mode**
 - Scroll up and down to view and search historical data
 - Auto scroll (on or off) as new output is displayed on the console
 - From command line, issue commands back to the monitored console

- **Rules/actions may modify the view**
 - Suppress messages from the console
 - Hold or highlight messages with color, blinking, etc.

Schedule Events and Actions

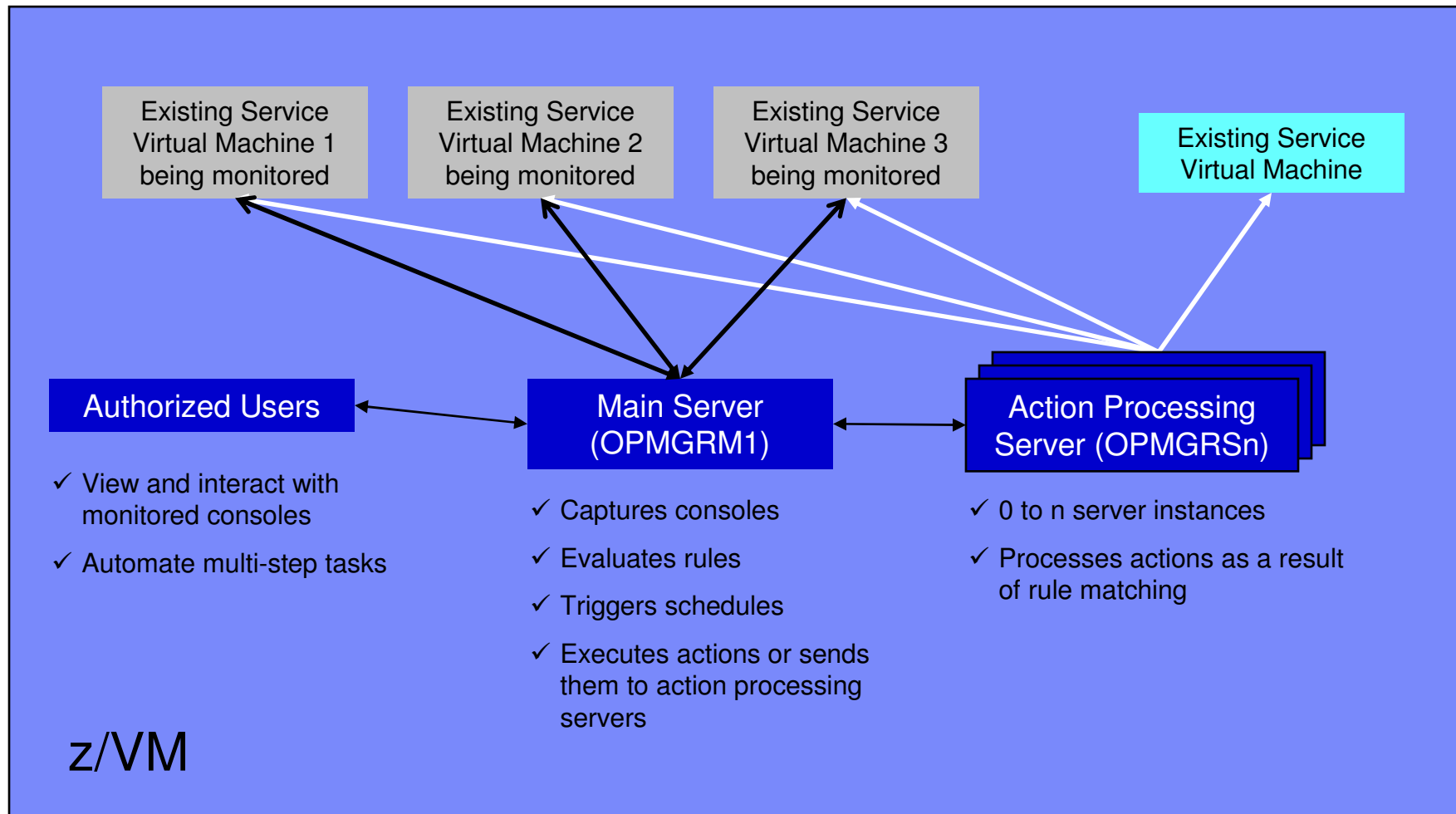
- **Define schedules**
 - Hourly, daily, weekly, monthly, or yearly
 - Once on specified month, day, year, and time
 - At regular intervals
 - Every x hours and y minutes
 - Within a specified window of time
 - Specify start time
 - Specify conflicting schedules
 - Specify maximum time to defer this schedule
 - Within limits
 - Restrict to specific days of the week: Monday through Sunday plus holidays
 - Restrict to certain hours of the day

- **Specify the action associated with the schedule**
 - Actions specified are the same as those for console rules

Access Control

- **Users defined with access to one or more:**
 - **Control commands**
 - Manage the Operations Manager infrastructure
 - Define additional service machines to execute actions
 - Authorize users
 - Display status
 - Issue CP and CMS commands on an Operations Manager service machine
 - Define data space sizes
 - **Configuration commands**
 - Define rules, schedules, actions
 - Define holidays
 - Define user IDs to monitor for logoff status
 - Define groups
 - **Consoles**
 - Define user access to monitored consoles

Operations Manager





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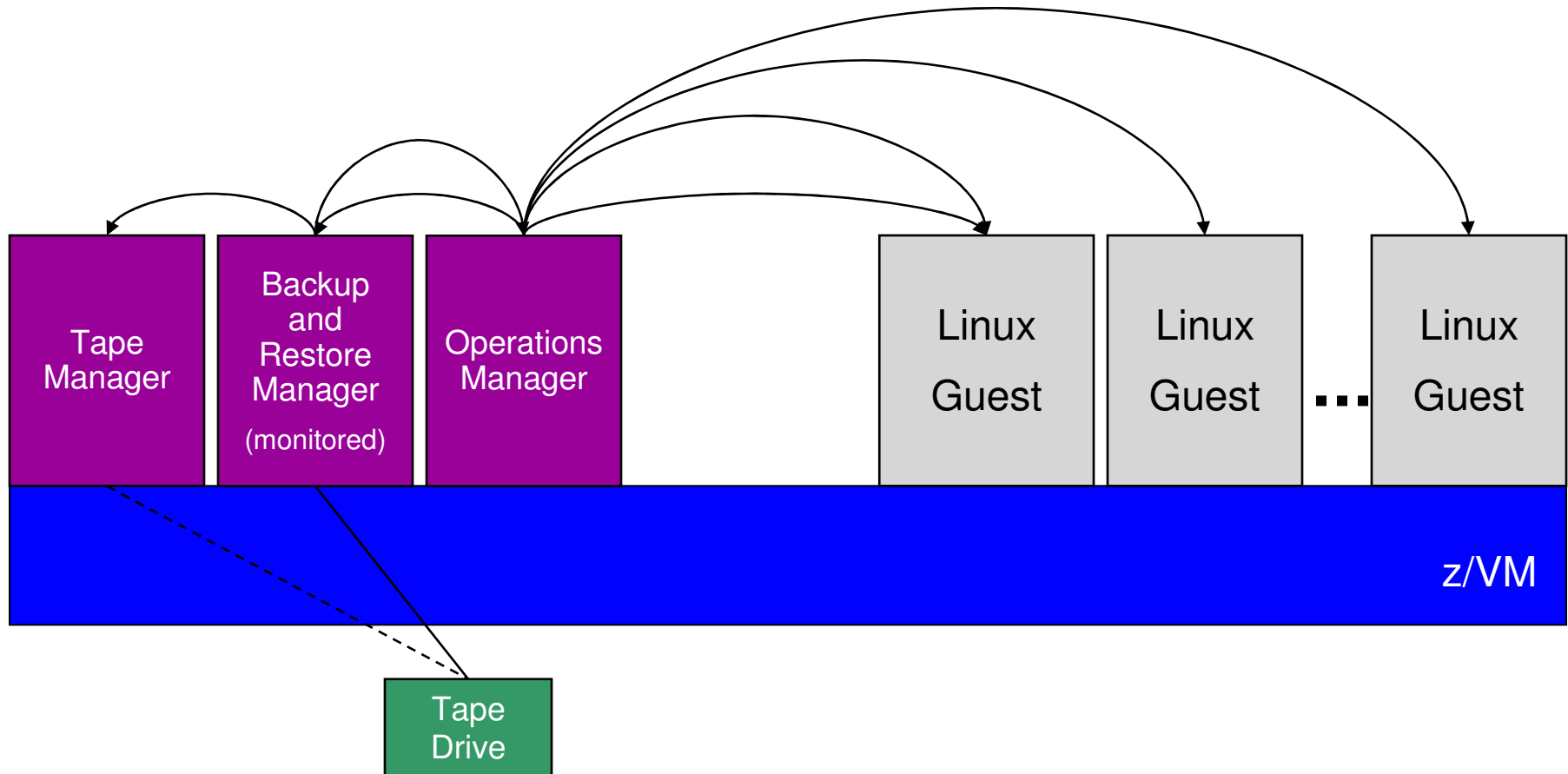
Demos

Scheduling Image Backups of Linux Guests

- **Initiated or scheduled by Operations Manager**
 - Schedule defined in Operations Manager to initiate backups at specific times/intervals
 - May include multiple schedules to allow quiescing/backing up one guest at a time
 - Action associated with each schedule
 - Linux guest is quiesced
 - Request sent to Backup and Restore Manager to back up the specific DASD/minidisks requested
 - Operations Manager notified when the action is complete
 - Use CONFLICT function in Operations Manager schedules to ensure the backup of each Linux guest is complete before the next one is started
 - Linux guest is reactivated

Scheduling Image Backups of Linux Guests

Scheduled by Operations Manager

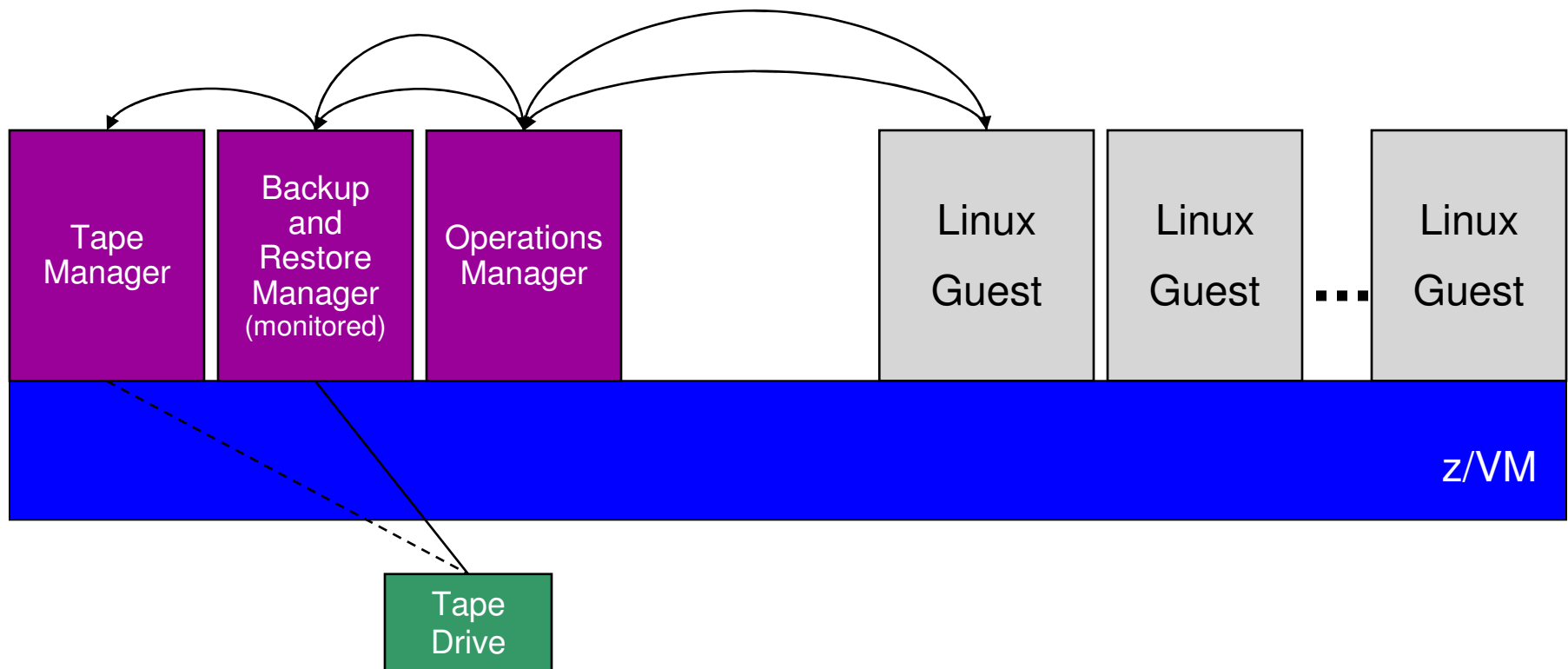


Performing an Image Backup of a Linux Guest

■ **Initiated or scheduled by the guest**

- Linux guest sends message/request to Operations Manager (or any console being monitored)
- Action is triggered by a rule in Operations Manager
 - Linux guest is quiesced
 - Perhaps quiescing only the application running there
 - Operations Manager sends request to Backup and Restore Manager
 - Back up the specific DASD/minidisks requested
 - Operations Manager monitors the console of the backup server
 - Receives the message when backup is complete
 - Triggers a rule to re-activate the guest and send a message to the Linux guest indicating completion

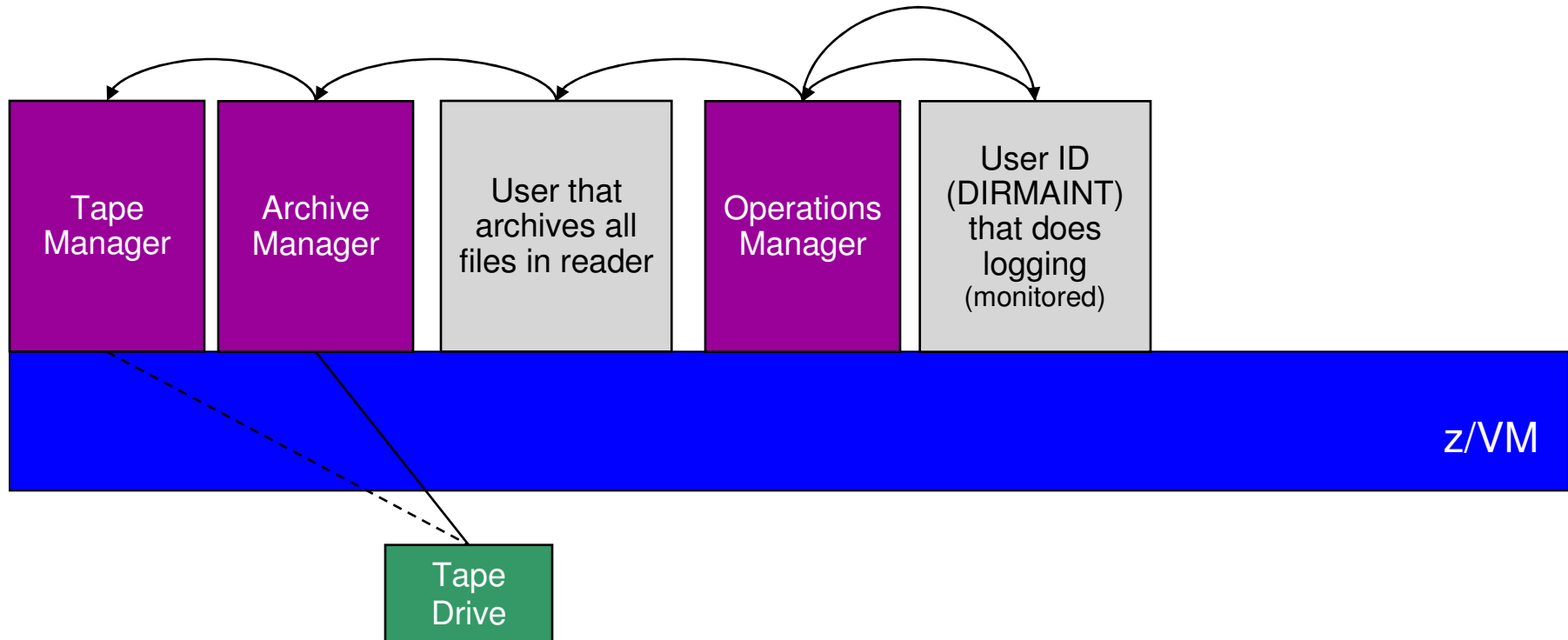
Performing an Image Backup of a Linux Guest Initiated by the Linux Guest



Detecting Disk Full Conditions of Logging IDs

- **Operations Manager monitors the console of a user ID that does logging**
 - DIRMAINT, for example
- **Disk full or early warning message triggers a rule/action in Operations Manager**
 - Shut down the service machine
 - Send the log files to a service machine which automatically archives all files it receives
 - May involve Tape Manager if archiving to tape
 - Erase the log files
 - Restart the service machine

Detecting Disk Full Conditions of Logging IDs



Summary

- **Use Operations Manager to**
 - Automate daily operations
 - Prevent problems rather than react to them
 - Automate reactions to problems when they can't be prevented
 - Improve problem determination procedures
 - Increase programmer and operator productivity

Reference Information

- **Product Web site**

- <http://www.ibm.com/software/stormgmt/zvm/>
 - Publications
 - Pre-requisites
 - Announcements
 - Support

- **e-mail**

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