

MODERNIZE AND OPTIMIZE YOUR MAINFRAME

# VM Manager Suite Road Map

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This is an update on the CA VM Manager Suite of tools.

# Linux on System z

## CA Technologies solution portfolio

- CA VM:Account
- CA MICS<sup>®</sup> Resource Management VM Data Transfer Option
- CA Application Performance Management
- Velocity zVPS<sup>™</sup> Performance Suite



### Performance and Capacity Management



### Systems Management and Automation

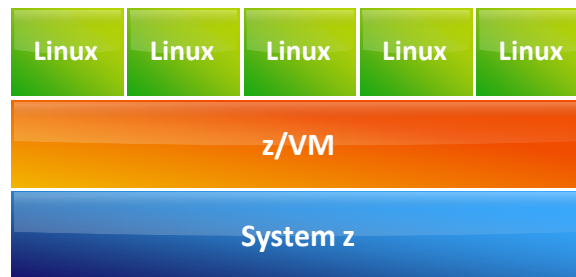
- CA VM:Manager<sup>™</sup> Suite for Linux on System z
- CA VM:Operator<sup>™</sup>
- CA VM:Spool
- CA Mainframe Connector
- CA OPS/MVS<sup>®</sup> Event Management and Automation
- CA SOLVE:Operations Automation

- CA VM:Batch
- CA VM:Schedule
- CA Workload Automation Agents



### Workload Automation

## Linux on System z



### Data Protection Disaster Recovery

- CA VM:Backup
- CA VM:Tape
- CA VM:Archiver
- CA Storage Resource Manager Agent
- UPSTREAM for Linux on System z

- CA Top Secret<sup>®</sup> for z/VM
- CA ACF2<sup>™</sup> for z/VM
- CA VM:Secure
- CA Site Minder Agent
- CA ControlMinder



### Security Management



### Automated Provisioning and Cloud Platform

- CA AppLogic<sup>®</sup> for System z



### Application Development

- CA AppLogic<sup>®</sup> for System z
- CA Easytrieve<sup>®</sup>
- CA Software Change Manager
- CA Gen

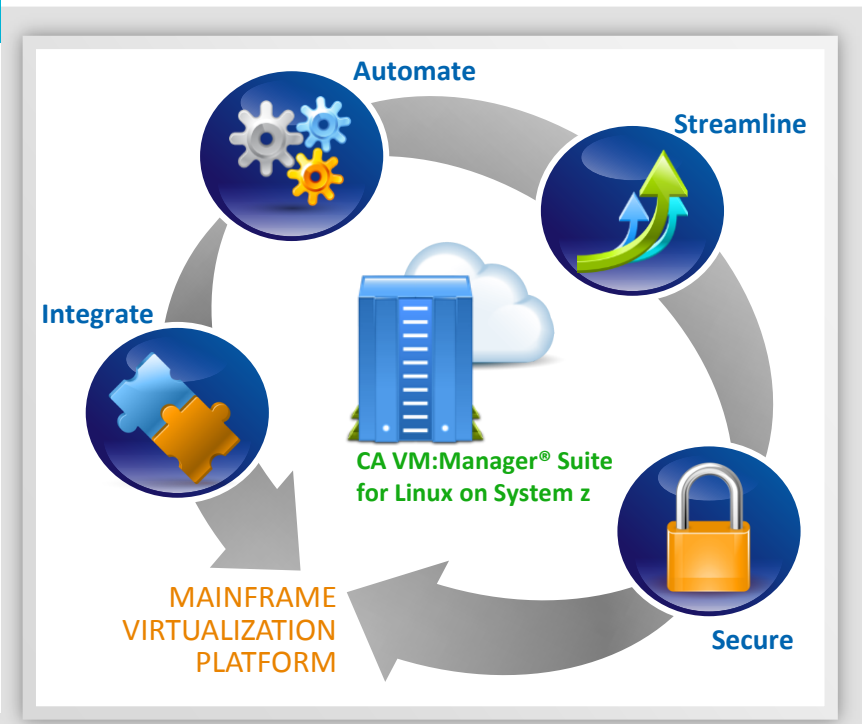
# CA solutions for z/VM management and security



## Optimize mainframe virtualization platform

### CA VM:Manager® Suite for Linux on System z

- Integrate and scale to support growing Linux deployments with thousands of virtual Linux guests running on System z
- Automate routine, labor-intensive tasks to reduce human intervention and errors
- Streamline z/VM operations for maximum efficiency
- Secure z/VM user, data and system assets
- Safely control and share z/VM resources



# CA VM:Manager Suite for Linux on System z

simplify management and security of z/VM

## Security

CA Top Secret for z/VM  
CA ACF2 for z/VM  
CA VM:Secure

## Disk Storage Assets

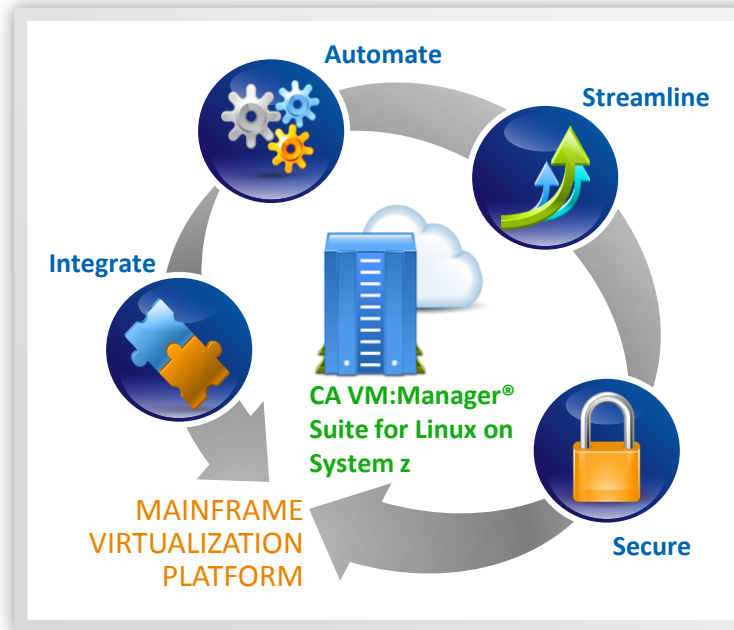
CA VM:Account  
CA VM:Director

## Storage Backup/Recovery

CA VM:Backup  
CA VM:Archiver

## Resource Chargeback

CA VM:Account



## Performance Tuning

CA Explore® Performance Management for z/VM

CA VM:Operator

## Operations Management

CA VM:Operator  
CA VM:Schedule  
CA VM:Spool  
CA VM:Sort  
CA VM:Batch

## Provisioning

CA VM:Director  
CA VM:Secure  
CA VM:Archiver

## Tape Management

CA VM:Tape  
CA Dynam/T for z/VM

# Strategy and Roadmap

## Virtualization, Cloud and Linux on System z

**Committed to growing support of Linux**

**Support Linux provisioning and management**

**Continue to simplify management and security of Linux**

**Make Linux a cost-effective choice for customers**



# Reduce complexity – speed implementation



## Standardize on IBM VMSES/E

- Install and service all CA z/VM products, reduces “experience pool” requirements
- Consistent look and feel enables products to be managed without a significant skills investment
- Common procedures for all products reduce complexity, speed implementation



## CA Mainframe VM Product Manager

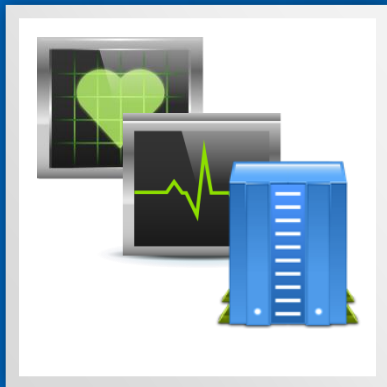
- Install and maintain products in single library, deploy wherever needed
- Automatic provisioning of servers with CA VM:Secure or CA VM:Director



# Reduce complexity – speed implementation



- Single System Image, current support
  - VM:Secure, VM:Director, VM:Spool
- Informational solutions
  - VM:Operator, VM:Backup, VM:Tape
- Future exploitation
  - VM:Schedule, VM:Account, VM:Operator, VM:Backup



- Cross-enterprise APM helps identify and isolate performance problems by monitoring health metrics; delivers deep visibility into the performance of key mainframe resources
- Extend APM to support applications that have a Linux on System z component using Velocity zVPS performance metrics



# Reduce complexity – speed implementation



## z/VM 6.3 certification

- Upgrade In Place support, new releases of VM:Secure and VM:Director
- CA Mainframe VM Product Manager to support large memory enhancement
- Support new API's in SMAPI from z/VM 6.2



## CA VM:Schedule

- Enable one VM:Schedule service machine in an SSI cluster to schedule and run requests on any member of the SSI cluster
- Convert to use the VM product common nucleus
- Various customer enhancements



## CA VM:Backup

- Various SFS related and other customer enhancements

# Reduce complexity – speed implementation

## z/VM 6.3 Support – New Features for VM:Secure r3.1 and VM:Director r3.1

Upgrade In Place - Allow the customer to use the Upgrade In Place facility to migrate from z/VM 6.2 to z/VM 6.3.

New Virtual Machine Configuration Update Facility - Support a new method to update Virtual Machine Definitions by entering commands or under program control.

New System Management Application Programming Interfaces for z/VM 6.2 - Support a few new API's added to the SMAPI facility in z/VM 6.2.

New Access Control Rule Definitions - Add to the set of resources controlled using VM:Secure External Security management.

Simplify Product Installation - Support a new method for installing product components into the IBM VM Control Program to reduce outages and ease release transitions.

# Reduce complexity – speed implementation

## z/VM 6.3 Support – New Features for VM:Secure r3.1 and VM:Director r3.1

### New Exits to Interface with External Security Management Products -

Support a set of exit routines which allow VM:Director to coordinate system management with ESM products such as RACF, ACF/2 for VM, or Top Secret for VM.

Additional Journaling for Incorrect Passwords - Support limiting the number of invalid passwords allowed when using the product Password Update Programming Interface.

Removal of SMAPI RPC Support - The obsolete Remote Procedure Call SMAPI server support will be removed.

z/VM 6.3 Toleration - In addition to the above VM:Secure and VM:Director enhancements, all VM products will be tested and updated as necessary to provide toleration support where existing product features function as designed and documented.

# Reduce complexity – speed implementation

## VM:Backup r3.6

VM:Archiver Tape Positioning Performance - This change will return Block ID information for each archived file and for the EOF1 tape label record in the keyword report of archive jobs using newly defined keywords. It is expected that VM:Archiver will eventually scan and save this information in its database. VM:Archiver will also specify the appropriate Block IDs on archive, recall and MPC jobs at some point in the future using new parameters. The support for these new parameters will be added but unused until VM:Archiver can be updated.

DASDtape Scratch Command – New line mode command to scratch DASDtape TAPE files and display information about the DASDtape disk utilization. The customer will be able to use this command before running a backup job and will allow them to determine if there is enough free disk space to perform a successful backup.

# Reduce complexity – speed implementation

## VM:Backup r3.6

SFS File Pool Restore Utility - A standalone utility will be written to restore an SFS File Pool from an incremental backup tape. This utility will help customers who are trying to reorganize an SFS File Pool.

VMBMCOPY Enhancement - Customers have, from time to time, inquired about removing domains from backup tapes. We have been unable to provide a way of doing that because, with the complexity of the VM:Backup catalog, it was not possible to simply copy backup tapes without also rewriting the catalog. However, now that we have the VMBMCOPY utility which is designed to copy backup tapes to new media, it becomes possible to remove domains simply by skipping over them during the copy process.

Document and Support XRESTORE Command - The XRESTORE command already exists in VM:Backup. This enhancement will provide formal user documentation on usage of this command.

# Reduce complexity – speed implementation

## VM:Backup r3.6

Prevent Premature Expiration of Backup Tapes - Using VM:Backup screens it is possible to change a catalog expiration date extending it into the future. When this is done with VM:Tape, the expiration dates of the tapes that are referenced by a catalog are not changed. This allows the tapes to be scratched and reused by some other user when the general scratch pool is used by VM:Backup. This enhancement will extend the expiration date for tapes used by a job whose catalog expiration date is being extended.

Improve Reporting of Virtual Storage Utilization - There are currently two messages: 077I and 075I which are redundant and have misleading documentation. They will be combined into one new message.

Allow End Users to Restore Deleted SFS File Spaces – End users can restore their own file spaces only if they are already enrolled in SFS. To get around this restriction sites enroll the file space manually guessing at the file space limit. This can lead to problems when restoring into the file space if the limit is not big enough. This change will allow an administrator to restore a deleted file space, creating the file space to the size it was when the backup was taken.

# Reduce complexity – speed implementation

## VM:Schedule r2.0

SSI Support - Enable one VM:Schedule service machine in a SSI cluster to schedule and run requests on any member of the SSI cluster, supporting the concept of a common resource pool implemented by SSI.

Convert to Common Nucleus - Convert VM:Schedule to use the VM product common nucleus to improve supportability/sustainability and modernize the overall product infrastructure for future product growth and scalability.



# Summary

CA is committed to continuing to:



Support z/VM and Linux on System z



Leverage specialty processors



Invest in innovation to grow value of the mainframe



CA's support of IFLs, z/VM and Linux on System z helps:



Increase productivity



Decrease operating costs



Increase security



Provide optimal platform for cloud

# Q&A

