CA z/VM products
new releases and future roadmap

Brian Jagos
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CA technologies

an overview of CA Technologies

CA Technologies is an IT management software and solutions company

CA Technologies is executing a bold vision for the future, where IT resources are delivered with unprecedented levels of flexibility

We stand apart from our competitors by solving the toughest IT management challenges through:

- Deep expertise in diverse and complex environments

- Highly reliable and scalable products that are easy to use

- A practical approach to innovation

Our products enable customers to **manage** and **secure** IT environments and **deliver more flexible IT services**

With CA Technologies, **IT powers business agility**

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agenda

— overview of enhancements in releases coming soon

— driven by CA's Mainframe 2.0 strategy

— infrastructure enhancements

— improved management of Linux on System z guests

— customer-requested enhancements

— CA z/VM product line roadmap

# the Mainframe 2.0 promise

CA Mainframe 2.0 solutions will:

- Be significantly easier to use
- Simplify installation, configuration and tuning
- Sustain the virtues of the platform
- Enable the platform to be managed without a significant skills investment:
- Enable a transition from other platforms
- Enable a new hire to be effective more quickly

CA pledges to reduce "experience pool" requirement and improve quality of management of the mainframe

CA intends to be the clear leader in end user experience for mainframe administration and operation
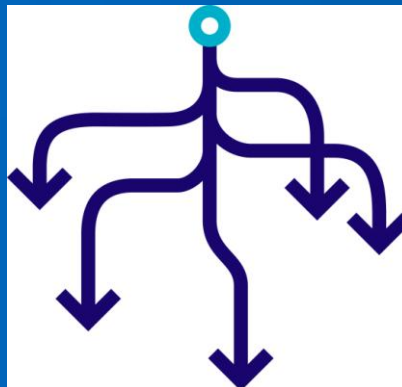
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CA z/VM solutions and Mainframe 2.0
reduce complexity – speed implementation
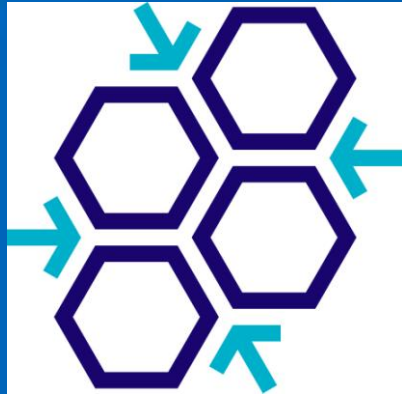
standardize on IBM VMSES/E to install and service all CA z/VM products

- 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

new releases packaged for VMSES/E and CA Mainframe VM Product Manager support

planned GA Q2 2011

CA Mainframe VM Product Manager Version 1.0

CA VM:Account Release 1.7

CA VM:Archiver Release 2.4

CA VM:Backup Release 3.5

CA VM:Backup HiDRO Feature Release 2.8

CA VM:Batch Release 1.4

CA VM:Director Release 2.9

CA VM:Operator Release 3.1

CA VM:Operator Release 3.1

CA VM:Prorexx Release 1.2

CA VM:Schedule Release 1.4

CA VM:Secure Release 2.9

CA VM:Sort Release 1.4

CA VM:Spool Release 1.7

CA VM:Spool V/Seg Feature Release 1.6

CA VM:Tape Version 2.0

CA Explore for z/VM Version 5.0

infrastructure enhancements

common code infrastructure improvements:

- **additional products ported to exploit CA VM Common Nucleus collection of services and routines**

- **single z/VM object directory reader program called by all products requiring directory look-up services**

using common code across products enables CA Technologies to deliver new features, enhancements, and problem solutions more quickly and efficiently

infrastructure enhancements (continued)

— Products ported to CA VM Common Nucleus, a collection of services and routines already shared by several CA products:

– CA VM:Tape Version 2.0

– CA Explore Performance Management for z/VM Version 5.0

— z/VM object directory reader

– Deployed as part of CA Mainframe VM Product Manager Version 1.0

– Called by all products requiring directory look-up services:

CA VM:Account Release 1.7	CA VM:Backup HiDRO Feature Release 2.8
CA VM:Archiver Release 2.4	CA VM:Batch Release 1.4
CA VM:Backup Release 3.5	CA VM:Schedule Release 1.4

CA VM:Tape Linux on System z Interface

features

— exploitation of VM:Tape functionality in Linux applications

— provides ability to mount a tape from Linux on System z

— hardware support via IBM Linux kernel driver

- Supports all tapes compatible with 3480, 3490, 3590, 3592

— TCP/IP used for Linux to VM:Tape communication

- Both IPv4 and IPv6 are supported
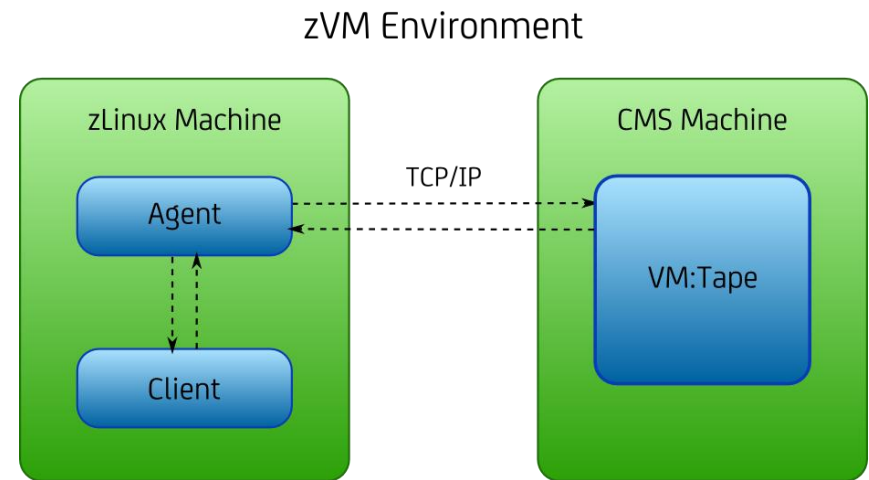
CA VM:Tape

— shipped in standard RPM package

planned GA Q2 2011

features (continued)

— centralized tape management on the Linux guest that does not expose sensitive interfaces (such as VMCP) to regular users

— regular (non root) users are able to mount tapes

— After successful mount there are corresponding devices in /dev owned by the user who issued the mount

— provides authorization handling for both mounted and saved tapes
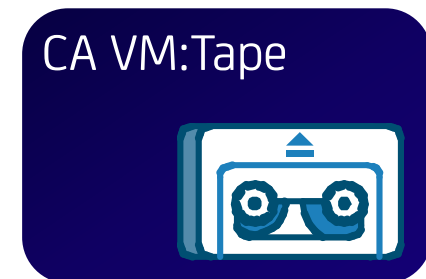
CA VM:Tape

architecture

— agent running as a system daemon

  – fully integrated through standard init scripts and logging facility

— client provides easy to automate CLI

— access can be restricted to specified group of users

zVM Environment

zLinux Machine — Agent — Client

CMS Machine — VM:Tape

TCP/IP

CA VM:Tape Linux on System z Interface
integration

integration with popular backup solutions

— backup solution can exploit CA VM:Tape Linux Interface through autochanger functionality

— backup server calls a script that simulates autochanger behavior and uses VM:Tape Linux interface to handle tapes

— tested with Bacula and Amanda

CA VM:Tape

CA VM:Tape Linux on System z Interface
sample output

example: sample Bacula output running backup job to a tape mounted by simulated autochanger

```
24-Feb 07:29 lnxibmds-dir JobId 142: Start Backup JobId 142, Job=TestJob.2011-02-
    24_07.29.15_03

24-Feb 07:29 lnxibmds-dir JobId 142: Using Device "myTape"

24-Feb 07:29 lnxibmds-sd JobId 142: 3301 Issuing autochanger "loaded? drive 0" command.

24-Feb 07:29 lnxibmds-sd JobId 142: 3302 Autochanger "loaded? drive 0", result: nothing
    loaded.

24-Feb 07:29 lnxibmds-sd JobId 142: 3304 Issuing autochanger "load slot 1, drive 0"
    command.

24-Feb 07:29 lnxibmds-sd JobId 142: 3305 Autochanger "load slot 1, drive 0", status is
    OK.

24-Feb 07:29 lnxibmds-sd JobId 142: Wrote label to prelabeled Volume "CA2222" on device
    "myTape" (/dev/vmtli/bctape)

24-Feb 07:29 lnxibmds-sd JobId 142: Job write elapsed time = 00:00:01, Transfer rate =
    136  Bytes/second
```

additional enhancements

following products include additional enhancements:

— CA VM:Account

— CA VM:Archiver

— CA VM:Backup

— CA VM:Schedule

— CA VM:Secure

— CA VM:Tape

— CA Explore Performance Management for z/VM

CA VM:Account

CA VM:Archiver

CA VM:Backup

CA VM:Schedule

CA VM:Secure

CA VM:Tape

CA Explore Performance Management for z/VM

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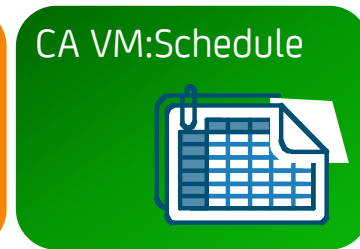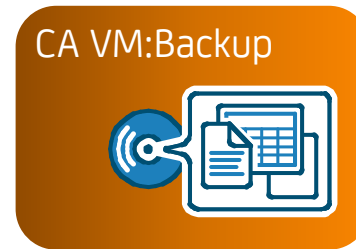
CA VM:Account Release 1.7 enhancements

toleration support for CPU type codes

— no longer processes vector processor fields in IBM session accounting records, preventing incorrect costing and QUERY USAGE output

CA VM:Account

cost table support for switch class devices

— enhanced to track usage and allow costing of 2032 FICON switch devices, and supports Open Systems Adapter device

CA VM:Archiver Release 2.4 enhancements

SYSID resolution

— System ID is generated automatically when CA VM:Archiver starts for the first time, and this change, together with the directory reader diagnose, enables CA VM:Archiver to always start in fully functional mode

CA VM:Archiver
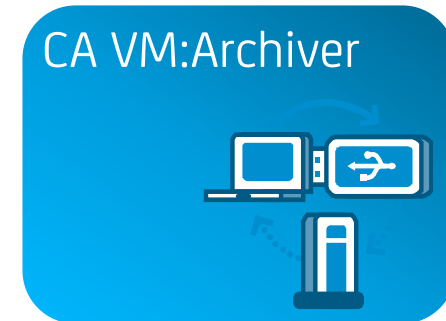
additional linemode command

— AUTHORIZ, a new line mode command, manipulates SYSADMIN or OPERATOR privileges for other users without accessing screens, and can be used to automate definition of authorizations for administrators and operators

additional parameters passed to VMAEXIT1

— parameters passed to VMAEXIT1 were in some cases insufficient to determine authorization to perform a particular command. Now the entire text of the command can be accessed from the user exit.

CA VM:Backup for z/VM Release 3.5 enhancements

planned GA Q2 2011

option EDRSUP default set to ON

— CA VM:Backup goes beyond first two bytes of the RDEV block to identify a compatible tape device and media it can use
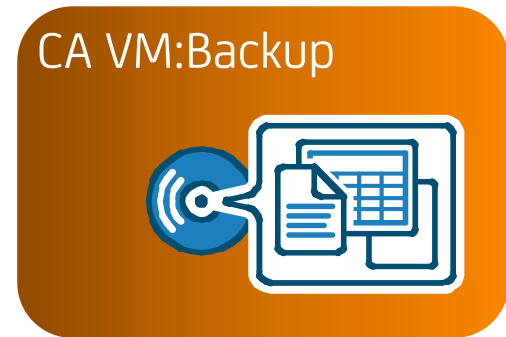
CA VM:Backup

CA VM:Backup HiDRO Feature encryption support

— supports encryption of backups using Triple DES and AES algorithms to help satisfy compliance requirements and to better secure sensitive data

CA VM:Schedule Release 1.4 enhancements

Passphrase and DMSPASS/DMSPWCHK support

CA VM:Schedule

— support for z/VM logon password phrases of up to 200 characters

- – Allows sites with ESM's supporting password phrases to use LOGON password phrases for VM:Schedule command authorization

- – Uses DMSPASS/DMSPWCHK IBM routines to perform password verification

  - alleviating need for user exits with ESMs other than CA VM:Secure

— *provides greater flexibility to meet stricter security and compliance requirements*
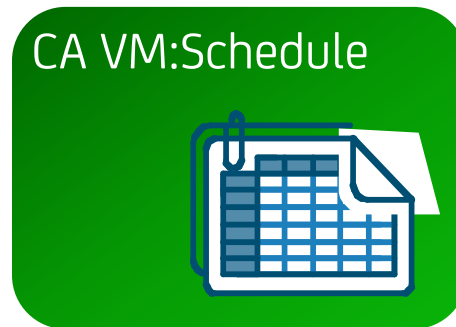
CA VM:Secure Release 2.9 enhancements

planned GA Q2 2011

VMCIPHER and file encrypting logic and configuration of RC2 encryption removed

— ability to use obsolete encryption algorithms is removed

— promotes use of stronger encryption algorithms to improve security for sensitive data

— capability to encrypt data using DES, Triple DES, and AES is retained

CA VM:Secure

VLAN rules support

— support added for controlling access to Guest LANs and virtual switches

— access requests made explicitly by issuing the COUPLE command or implicitly by defining a value for the LAN operand on a NICDEF CP Directory statement

— COUPLE rule definition replaces GRANT operand on a SET VSWITCH or SET LAN command

— For a VLAN-aware virtual switch, set of VLAN ID values may be defined to restrict access to specified IEEE VLANs

— COUPLE RULE option grants PROMISCUOUS mode access for special purpose network debugging programs

CA VM:Tape Version 2.0 enhancements

planned GA Q2 2011

CA VM:Tape

MOUNT command enhancement

— new user exit USREXIT9 can be used to retrieve information about a tape drive (the real device address, location etc.), providing sufficient data to enable operators to make decisions about automation and action routines

MOUNT and CANCEL message enhancements

— real device address has been added to messages 0014I, 0051T, 0100I to enhance their use for automation purposes

VMTAPE QUERY enhancements

— QUERY VOLUME command displays additional information about tapes, such as catalog density values, scratch pool names, out-of-area codes, etc., and can display information about deleted tapes and tapes not in the TMC if maintained in IBM or STK robotic tape subsystem

QUERY command authorization change

— OPERATOR authorization no longer required for QUERY, QUERY TAPES, and QUERY REQUESTS, so any user can obtain information about pending MOUNT and ALLOCATION requests.

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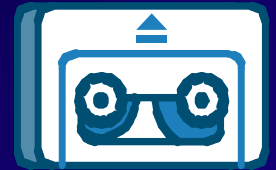
CA Explore Performance Management for z/VM Version 5.0 enhancements

planned GA Q2 2011

data collection via IBM standard monitor records

— obtaining performance data from IBM monitor records improves the reliability of CA Explore PM for z/VM by replacing older data collection methods with standard IBM-supported methods

CA Explore Performance Management for z/VM
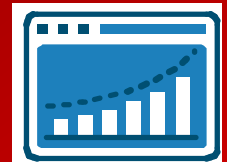
CA z/VM product line roadmap

guiding principles

enhancement strategy

roadmap overview

guiding principles

Superior Technical Support	**Maintain industry standard 24x7 technical support** focus on timely, quality resolution to issues
Quality and Reliability	**Constantly improve quality and reliability of products** more rigorous project management increased focus on automation of testing
Meeting Customer Needs	**Enhance products to meet customer requirements** while also exploiting advancements in technology

enhancement strategy

- Day one support for new releases of z/VM

  - Timely implementation of customer-requested enhancements

    - Enhance products to exploit new technology and support new devices

      - Simplify implementation and use of our products while also exploiting advancements in technology

roadmap overview

— Day One support for z/VM 6.2.0 and future releases

— Day One support for z/VM Single System Image, plus enhancements to allow exploitation of Single System Image architecture

— Deliver remaining products in IBM VMSES/E format in support of CA's Mainframe 2.0 strategy
  - CA Dynam/T Tape Management for z/VM
  - CA VM:XMENU
  - CA VTERM

— Deliver enhancements to improve Linux guest management

— Deliver enhancements in response to customer demand
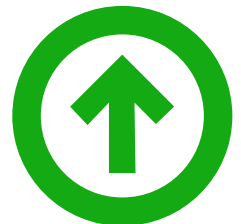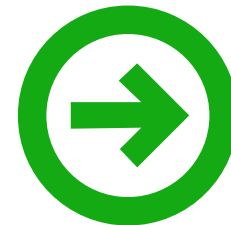
improve capability to manage Linux on System z guests
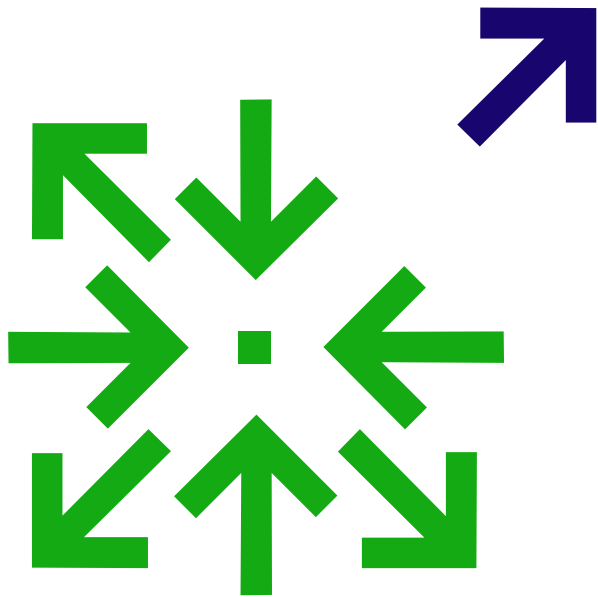
- CA Explore for z/VM enhancements to monitor Linux system performance, modernize the user interface, and simplify reporting

- CA VM:Operator enhancements to allow simpler and more secure automated management of Linux on System z guests

- your ideas?

enhancements requested by customers

CA VM:Operator

support for duplicate consoles

CA VM:Backup

capability to copy backup from one media type to another and retain catalog structure

CA VM:Secure

LDAP support

customer requests
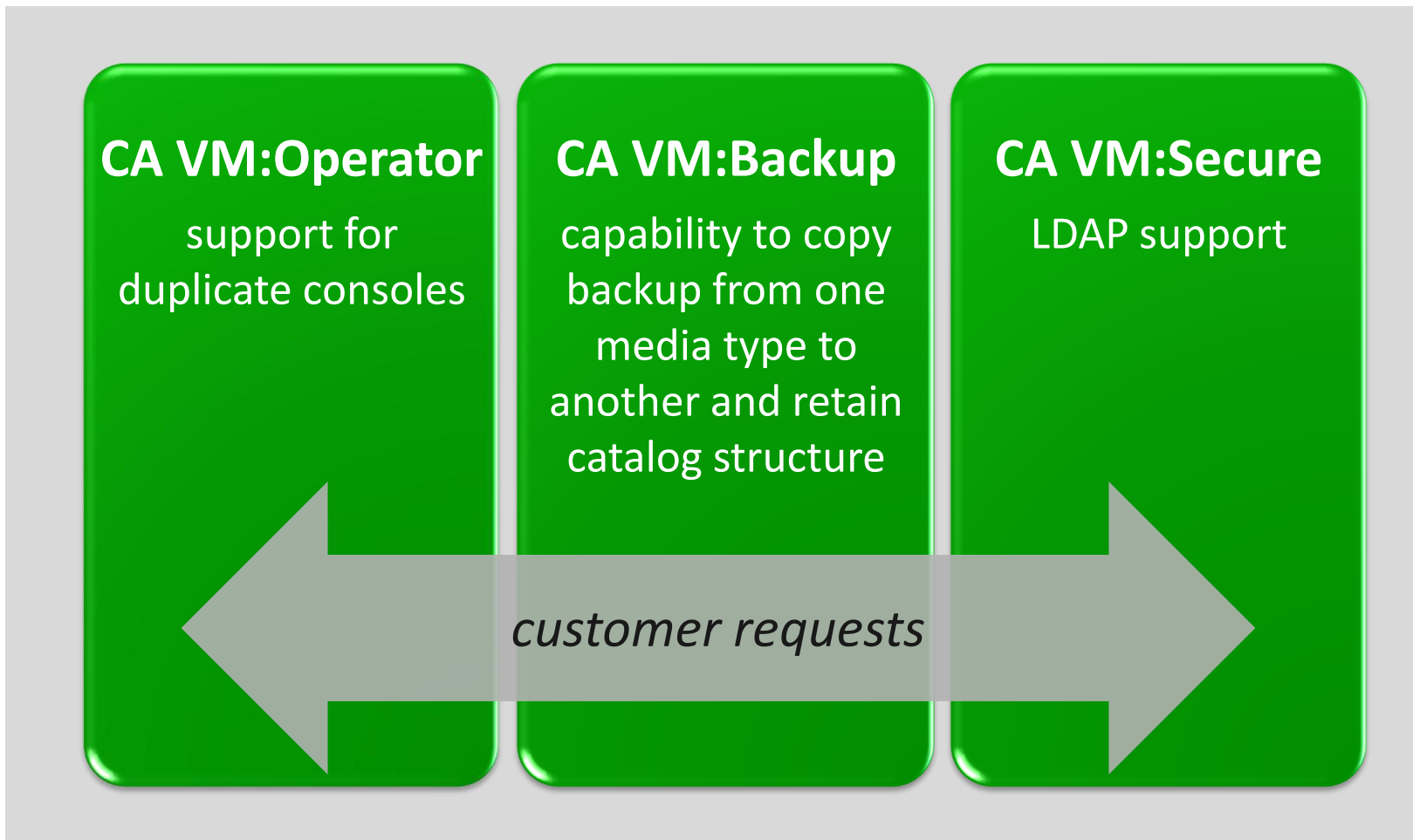
…your ideas?

questions?

thank you

legal notice