CA z/VM products implement VMSES/E

Combine standards, productivity and optimum performance!

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agenda

- z/VM product installation, service beginnings and transformations
- Decision to use IBM VMSES/E for installation and service of CA z/VM products
- Overview of VMSES/E implementation for CA z/VM products

the way it was

similar beginnings

- **Instruction based - largely manual**
  - Real (and reel!) tape
  - Instructions for set up
    - Directory entries
    - Disk space
    - Prone to error
  - Instructions to load content from tape to disk
    - Instruction error
    - Error in execution

automation brought divergence in methods

- **Vendors created their own methods to automate installation and maintenance**
  - SES, AIM, Activator
    - At first error prone, stabilized and improved over time
  - Some still largely manual for maintenance
    - Zap based
    - Even source updates are manual
  - Customers grew with them over time and got used to how things were

the start of change

Linux on System z brought new mainframe interest

- **New mainframe administrators faced large learning curve**
  - Mainframe in general
  - New OS and interfaces
  - New software installation and administration
    - Different across vendors and even product by product
    - Infrequently used tools are hard to remember

CA customer feedback
challenges of too many methods

Different installation methods across software vendors

- Sometimes different for products from the same vendor
- Increases complexity
- Creates need for skills many new users don't have

Lost time being able to get product benefits and cost savings

Increased burden for everyday duties

Less time for research and implementation of new innovations

Experienced Mainframe Staff

Experienced staff cannot easily delegate installation software tasks to newcomers

New Mainframe Resources

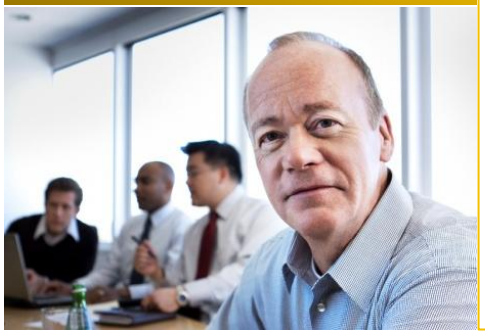
Have to learn new install along with product skills, increasing implementation time

CA customers voiced their opinion

- **Installation, upgrade and service**
  - Make it easier, faster and consistent over the product line
  - Other requested improvements related to servicing the products
    - Automatic requisite checking is limited
    - Multipart Fixes require significant manual operations to apply the pieces of a fix
    - Backing out fixes is complicated
- **Study concluded VMSES/E was the way to go!**
  - Survey and discussions with subset of CA z/VM product customers
  - Study concluded implementation using IBM VMSES/E was the best solution

good for everyone

Good for customers



- Already use VMSES/E for z/VM OS installation and service
  - no new tool to learn
- Same method used across z/VM and CA products on z/VM
  - more usage means more familiarity
- Take advantage of VMSES/E functions with CA VM products

Good for CA

- Tried and true installation method for CA z/VM products
- Immediate benefit of features for customers
  - out of the box with VMSES/E conversion
- Take advantage of future IBM improvements in VMSES/E
- Sets solid base for future interfaces

IBM VMSES/E implementation overview

new set up

- **New user ID for install and service – VMANAGER**
  - Must be installed and set up before other products
  - CA supplies logic that runs here to drive VMSES/E functions and add value with CA specific functions
    - CA Mainframe VM Product Manager
  - Can co-exist with VMRMAINT to allow phased migration to VMSES/E serviced products
  - CA product inventory database kept separate from the IBM Software Inventory database
  - Physical tapes or envelope files with file type SERVLINK

simple basic steps for all installs

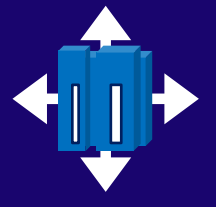
Prepare and plan

Allocate installation resources

Install product code

Allocate server runtime resources

Deploy product code



prepare and plan

- **Obtain product resource requirements**
  - VMFINS INSTALL INFO (MEMO
    - Loads various files for making installation decisions (PPF, MEMO, PRODPART)
  - VMFINS INSTALL PPF *ppfname component* (PLAN
    - Loads resource requirement information
    - Creates a PLANINFO file
    - Allows you to create PPF override if desired

allocate product installation resources

- **Create user ID to own each product release**
  - ex: ZVMJ017A – CA VM:Account 1.7 release
  - Will own the disks or SFS directories the installed product logic will reside on

allocate product installation resources

— Allocation options

- When VM:Secure or VM:Director is installed
  - Allocates the user ID and its disk or directory space automatically
  - VMALLOC PRODUCT ppfname component-name

    VMALLOC PRODUCT ZVMJ017A VMACCOUNT
- When VM:Secure or VM:Director is not installed
  - VMSES/E produces the ZVMxnnnA PLANINFO file that specifies the required user ID and minidisk layout.
  - Customer uses their own resource allocation procedures to define the needed resources

install the product code

- **Load the product code from tape or tape image**

  VMFINS INSTALL PPF *product component* (ADD

  VMFINS INSTALL PPF ZVMJ017A VMACCOUNT (ADD

complete the installation

- **Complete installation by updating the Build service**

  VMFINS BUILD PPF *product component* (SERVICED

  VMFINS BUILD PPF ZVMJ017A VMACCOUNT (SERVICED

deployment start

- **Establish the definition of a product server**
  - All definitions and attributes set in VMSERVER NAMES file
  - Use VMDEFINE command to define entry in VMSERVER NAMES file
    - Creates an entry in the VMSERVER NAMES file containing server definitions like the primary and alternate server disks, initial server startup command options etc.
  - VMDEFINE *deployment-name ppfname componen*t

    VMDEFINE VMACCT ZVMJ017A VMACCOUNT

VMSERVER NAMES file

```
 ====> NAMES (Product Server panel)     File: VMSERVER NAMES     V1
Fill in the fields and press a PFkey to display and/or change your names file
Nickname: VMACCT     Product: CA VM:Account (TM) Version 01.7
PPF Name: ZVMJ017A VMACCOUNT

      Runtime Environment: PRIMARY
   Server Startup Command: VMJSYS
     Deployable tag names: runtime admin public
  Administration ID links: ADMIN 1F0 ALL LOCAL 1F1 ALL RUNTIME 1F2 ALL
                         : CTLDISK 1F3 ALL COLLECT 1F4 ALL
                         :

 Tag: required       Value: local ctldisk collect
 Tag: optional       Value: dbdisk collect_twin vse_disk vse_twin trndfile
 Tag: runtime        Value: VMACCT 192
 Tag: admin          Value: VMACCT 170
 Tag: public         Value: VMANAGER PUBLIC
 Tag: help           Value: VMANAGER HELP
 Tag: altruntime     Value: VMACCT 292
 Tag: altadmin       Value: VMACCT 270
 Tag: altpublic      Value: VMACCT 293
 Tag: local          Value: VMACCT 191
 Tag: collect        Value: VMACCT 1B0
 Tag: ctldisk        Value: VMACCT 1C0
 Tag: collect_twin   Value: *VMACCT 1B1
 Tag: dbdisk         Value: *VMACCT 1B0

1= Help       2= Add       3= Quit        4= Clear        5= Find       6= Change
7= Previous   8= Next      9= Delete     10= PrevScrn    11= NextScrn 12= Cursor
                                        ======> Screen 1 of 2 <======
====>
```

VMSERVER NAMES

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PPF Name: ZVMJ017A VMACCOUNT

      Runtime Environment: PRIMARY
   Server Startup Command: VMJSYS
     Deployable tag names: runtime admin public
  Administration ID links: ADMIN 1F0 ALL LOCAL 1F1 ALL RUNTIME 1F2 ALL
                         : CTLDISK 1F3 ALL COLLECT 1F4 ALL
                         :

 Tag: trndfile       Value: *VMACCT 1B0
 Tag: vse_disk       Value: *VMACCT 1B0
 Tag: vse_twin       Value: *VMACCT 1B1
 Tag: sysadmin       Value: *VMJSYSAD
 Tag: alocal         Value: VMJSYSAD 191
 Tag: vmjdasd        Value: VMJDASD1
 Tag: localD         Value: VMJDASD1 191
 Tag:                Value:
 Tag:                Value:
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1= Help       2= Add       3= Quit        4= Clear        5= Find      6= Change
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```

allocate server resources

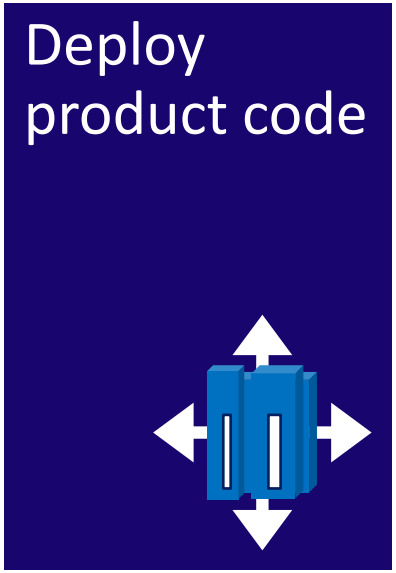
- **Create a user ID for a specific product server machine and allocate disk space**
  - With VM:Secure or VM:Director
    - VMALLOC SERVER *servername*

      VMALLOC SERVER VMACCT
  - Without VM:Secure or VM:Director
    - VMSES produces the ZVMxnnnA PLANINFO file that specifies the required user ID and minidisk layout. The customer uses his own resource allocation procedures to define the needed server resources

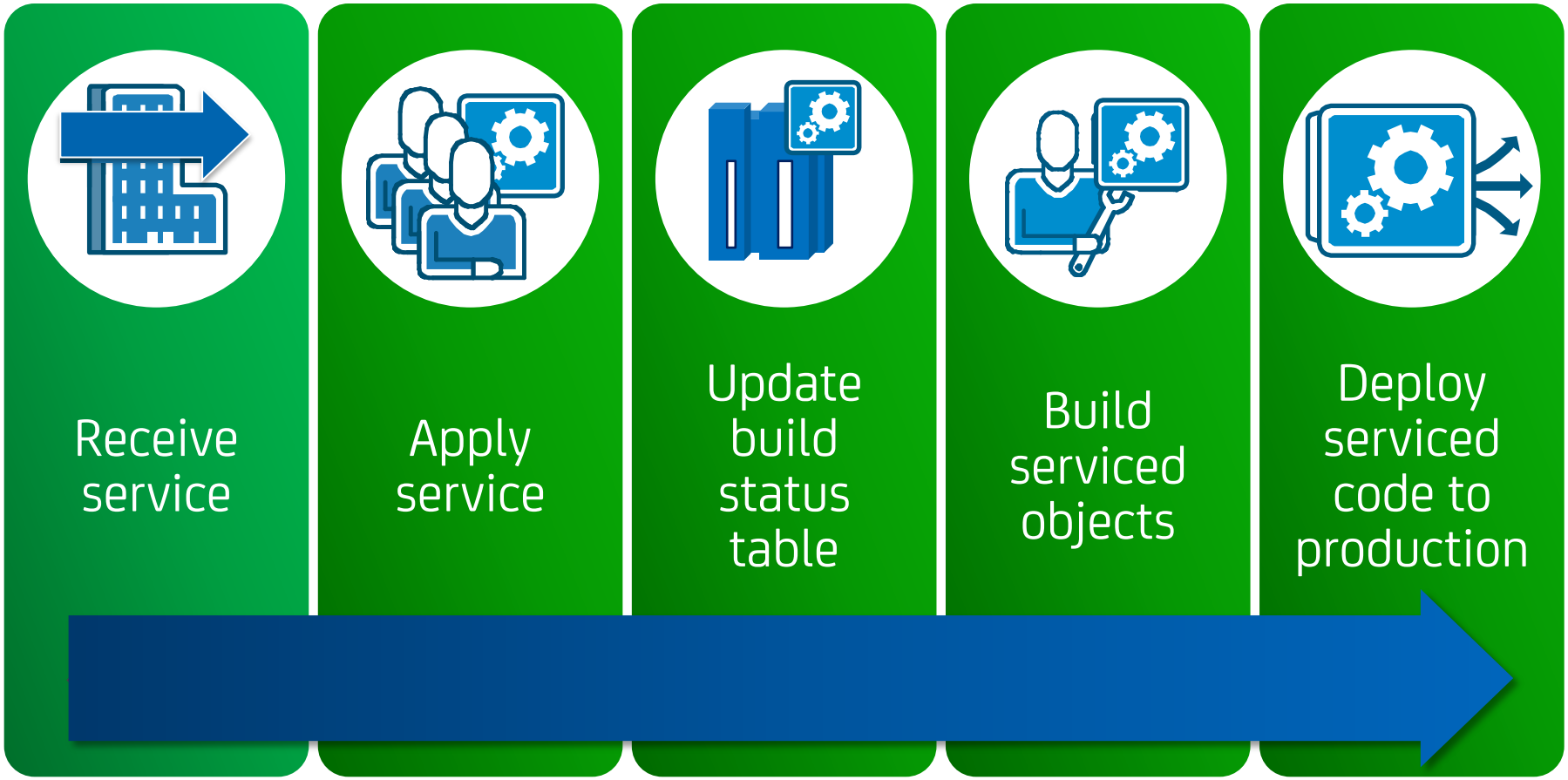
Allocate server runtime resources

deploy product code to server

- **Deploy copies installed or newly serviced product code to server runtime disks**
  - Primary or alternate code disks may be populated
    - VMDEPLOY VMACCT
    - VMDEPLOY VMACCT ALTERNATE
  - The product disks are separate copies used by each server so that subsequent service may be staged



applying service



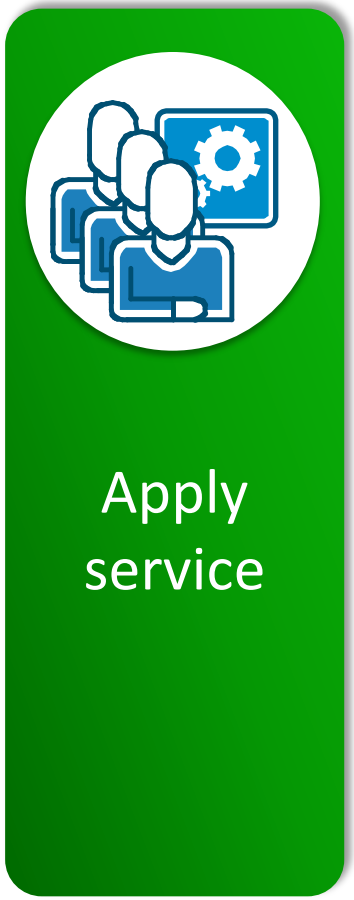
receive service

Receive service

- **Receive PTFs from a service tape or envelope**
  - VMFREC PPF *ppfname component* (ENV *envelope-filename*

    VMFREC PPF ZVMJ017A VMACCT (ENV J017PTF1
  - If you have multiple service tapes or envelopes you can receive all the service before building and applying it

apply service



- **Apply received service**
  - VMFAPPLY PPF *ppfname component*

    VMFAPPLY PPF ZVMJ017A VMACCOUNT
    - Applies received service
    - Version vector tables updated with serviced parts
    - Aux files generated on alternate apply disk

build service parts

Update build status table

- **Update build status table and build serviced objects**
  - VMFBLD PPF *ppfname component* (STATUS

    VMFBLD PPF ZVMJ017A VMACCOUNT (STATUS
    - Updates the Build Status Table
  - VMFBLD PPF *ppfname component* (SERVICED

    VMFBLD PPF ZVMJ017A VMACCOUNT (SERVICED
    - Builds serviced objects

Build serviced objects

deploy to product

Deploy serviced code to production

- **To deploy serviced product materials to production (runtime) disks**
  - VMDEPLOY product-server-userid [PRIMARY|ALTERNATE]

    VMDEPLOY VMACCT ALTERNATE

general usage

- VMSES/E functions can be used with CA products
  - VMFVIEW to view message log file output from commands
  - VMFSETUP to establish search order for 1 product version
  - VMFINS, VMFREC, VMFAPPLY and VMFBLD
- Easy to deploy identical logic to multiple servers
- Easy to back off maintenance
- Status of work recorded

what next?

Tune in for

May Mainframe Madness

and discover additional
ways to **optimize** your
z/VM and **Linux on System z**
environments!

Questions?

thank you

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