

CA Chorus Software Manager UPS Experience



August 15, 2013

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Agenda

- Installation History at UPS
- Environment
 - Mainframe Configuration
 - CSM Installation & Configuration
 - CSM SMP/E Environment
 - CSM Runtime Environment
- Customer Enhancement Requests (DAR)
- CSM-Enabled Products
- Deployment Management
- Recommendations
- Conclusion

Installation History at UPS

- 10/2009 2.0 Review/Installation
- 02/2010 2.0 Product Install
- 08/2010 3.0 Product Install (New Install)
 - ➤ Deployment Manager Exploitation
 - ➤ Single File System Allocation
 - > SMP/E options added (Receive, Apply Check, Apply, Groupextend)
- 02/2011 3.1 Product Install (New Install)
 - > CA RS Processing
- 03/2012 4.1 Upgrade (Data Migration)
 - > CA MSM Resource Center
 - ➤ Maintenance Usability Enhancements
- 02/2013 5.1 Upgrade (Data Migration)
 - ➤ Deployment Cloning
 - > Download Maintenance Only!



Mainframe Environments at UPS

- 4 Sysplexes
 - 2 Production
 - Consisting of 18 LPARs
 - ➤ 1 Development
 - Consisting of 3 LPARs
 - > 1 Stress
 - Consisting of 2 LPARs
- 3 MonoPlexes
 - ≥ 2 Production
 - ➤ 1 Development

- JESINTERFACELEVEL=2 using OMVS to install.
- We let SMS do all the "heavy lifting" during the build process.
- CSM address spaces primarily reside on DVLP LPAR and can be moved to any of the 3 development LPARs by modifying the "context.xml" file in /msmruntime/tomcat/conf/
- Starting with MSM 3.0 & again with 4.0, we had to apply maintenance to Common Services 12.x (CETN300, CETN400). By the time we upgraded to 5.1, Common Services was at release 14.1 and required no additional maintenance.

- Starting with MSM 4.1, we noticed our OMVS "high water marks" increasing from the MSM requests. As a result: We Modified the following OMVS parameters:
 - MSM 4.1 increased MAXMMAPAREA from 4096 to 40960
 - MSM 5.1 increased SHRLIBRGNSIZE from 67108864 to 157386400
 - MSM 5.1 increased IPCMSGNIDS from 500 to 1000

```
D OMVS,L
 BPX0051I 15.24.23 DISPLAY OMVS 112
                                     OMVS = (00, 01)
 OMVS
           0010 ACTIVE
 SYSTEM WIDE LIMITS:
                               LIMMSG=NONE
                    CURRENT
                              HIGHWATER
                                              SYSTEM
                       USAGE
                                   USAGE
                                               LIMIT
 MAXPROCSYS
                        1215
                                    1400
                                                1500
                          75
                                      80
                                                 100
 MAXUIDS
 МАХРТУС
                                                8000
                           0
                                       3
MAXMMAPAREA
                        7168
                                    7189
                                               40960
 MAXSHARFPAGES
                       41154
                                   99342
                                           10000000
TPCMSGNTDS
                          29
                                      32
                                                1000
                          43
 TPCSEMNIDS
                                      48
                                                 500
                                      35
                                                 500
  PCSHMNIDS
                          40
                                      53
                                             262144
 IPCSHMSPAGES
 IPCMSGOBYTES
                                     456
                                              262144
 IPCMSGOMNUM
                                               10000
 IPCSHMMPAGES
                                               25600
                                   12800
                  157286400
                              157286400
                                          157386400
SHRLIBRGNSIZE
 SHRLIBMAXPAGES
                           0
                                       O
                                                4096
 MAXUSERMOUNTSYS
                           0
                                       0
 MAXUSERMOUNTUSER
```

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- Starting with MSM 4.1 and with CSM 5.1, the Data Migration Utility was used to upgrade the existing product inventory.
- Initial Upgrade to CSM 5.1, we changed from JAVA 6.01 31bit to JAVA 7.0
 31Bit and experienced "Out of Memory" during initial load of the logon screen.
 Worked with support and down leveled to JAVA 6.01 64Bit. Problem resolved.

Runtime Environment

Unique file system for each release of CSM:

Type	Perm Changed-EST5EDT Owner	Size	Filename
_ Dir	775 2013-07-05 10:39 OMVS	8192 .	
_ Dir	775 2011-10-07 12:12 SYS1CJD	608	
_ Dir	775 2013-03-08 13:28 SYS1CJD	8192	deploy
_ Dir	775 2013-04-04 10:19 OMVS	384	mpm
_ Dir	775 2013-04-10 10:20 OMVS	8192	msmtmp
_ Dir	775 2011-03-03 14:52 OMVS	256	v3r0
_ Dir	775 2011-03-07 12:11 OMVS	256	v3r1
_ Dir	775 2012-02-21 07:37 SYS1CJD	672	v4r1
_ Dir	775 2013-04-10 09:37 SYS1CJD	8192	v5r1

SMP/E Environment

We build a new SMP/E environment for each release of CSM:

EUID=1008 /smpe/ca/msm/

Туре	Peri	m Changed-	EST5E	DT	Owner	Size	Filename
_ Dir	775	2013-03-07	14:43	SYS	1CJD	8192 .	
_ Dir	775	2012-02-15	14:26	SYS	1CJD	672	
_ Dir	775	2011-03-02	14:30	SYS	1CJD	256	v3r0
_ Dir	775	2011-03-02	14:30	SYS	1CJD	256	v3r1
_ Dir	775	2012-01-10	10:59	SYS	1CJD	256	v4r1
_ Dir	775	2013-03-07	14:46	SYS	1CJD	8192	v5r1

Customer Enhancement Requests (DAR)

SMP/E Receive, Apply Check and Apply

In MSM 2.0, SMP/E was limited to an install function. Receive, Apply Check, and Apply all in one action.

CA RS Maintenance Package & Receive (available with 6.x)

Currently, CA RS is limited to reporting recommended service. A request was submitted to enhance CA RS with download and receive options.

Data Set Allocation – Deployment (considered)

The current deployment feature transmits and allocates data sets in bytes ONLY! No option available to customize the allocation.

CSM Enabled Products Installed at UPS:

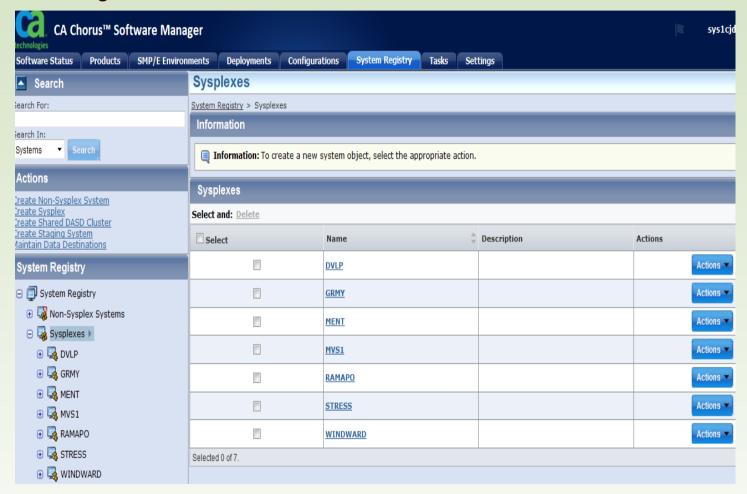
- Currently, 26 CA products are installed on UPS Mainframes.
- 21 are Installed and Managed in CSM.
- With the opportunity to migrate/manage 5 DB2 Utilities.
- CSM is managed by z/OS and third party software support team.
- CSM accessible to all mainframe software support groups.

Deployment & Configuration

- Leveraging TCPIP.
- Deploy to 4 SYSPLEXES & 3 Mono Plexes.
- Deployments are scheduled to staging libraries with Legacy Procedures for "RUNTIME" population.
- We "DO NOT" utilize Software Configuration Services.

Deployment – System Registry

We are CCI-registered to 1 LPAR on each Plex.



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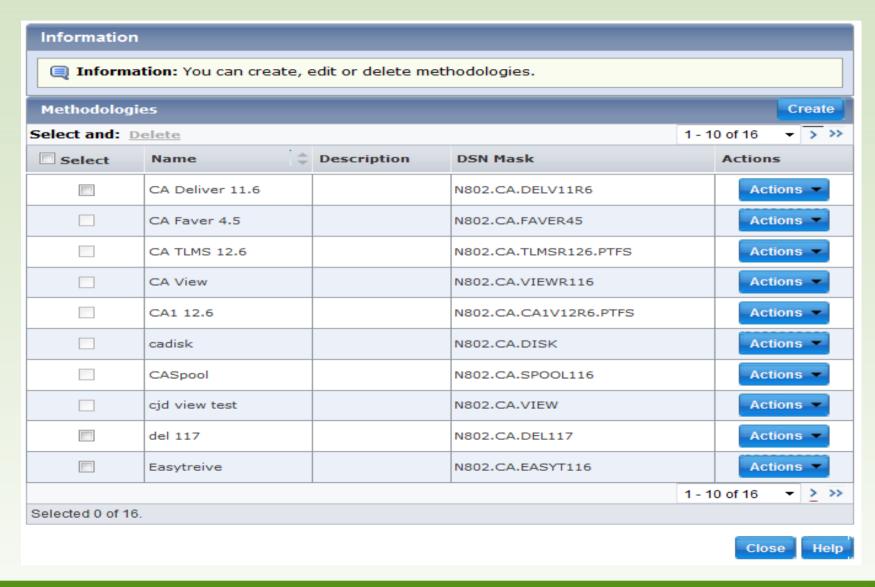


Deployment - Methodologies

- Maintain a separate "Methodology" for each product. We use a "standard" SMS-Managed HLQ.
- Choice of:
 - > Create
 - > Create or Update
 - > Replace

Since our deployment data sets are for "staging purposes", they should never be "in use" by another user, so we use the "REPLACE" option.

Deployment - Methodologies



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Recommendations

- Stay as current as possible with JAVA JRE.
- Always stay current with CA Common Services.
- Use "Prerequisite Validation".
- Monitor your OMVS "System Wide Settings". CSM 5.1 had a substantial impact on these settings.

Conclusion

- Substantially cuts down on the amount of time to bring a product to production.
- Little training required. Whether new to SMP/E product delivery and maintenance or experienced, CSM offers the flexibility to bring a product to production in a fraction of the time. CSM offers the experienced programmer flexibility to manage the outcome.
- CSM has grown immensely since 2.0 and offers a complete service from ordering a product through production implementation.
- "Browser Friendly"

Questions?

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Thank You

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