

IBM Education Assistance for z/OS V2R1

Item: Capacity Provisioning Currency
Element/Component: Capacity Provisioning



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Trademarks

- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.



Presentation Objectives

- **Set-up improvements**

- Started task user no longer requires password
- Configurable location of CIM provider properties file
- JAVA V7 support

- **Understand Provisioning Manager command enhancements**

- More details on domain set-up

- **Know what migration is necessary**

- Support of SNMP is removed with this release and migration to z/OS BCPii needs to be done
- Support for the Capacity Provisioning Control Center (CPCC) is removed. Instead the Capacity Provisioning task in the IBM z/OS Management Facility (z/OSMF) needs to be used.



Overview – CPOSRV without password

▪ **Problem Statement / Need Addressed**

- Provisioning customization required a started task user with a password for the Provisioning Manager
- Started task users usually don't have a password
- User with password is needed to generate passtickets to access observed systems

▪ **Solution**

- Support for an alternate user to access the observed systems

▪ **Benefit / Value**

- Standards for started task user can be applied
- “old” customization is still valid



Usage & Invocation – CPOSRV without password

▪ **Invocation:**

- Authorize the new user to access the CIM server at the observed systems
- Authorize user CPOSRV to create passtickets for the alternate user
- Define the alternate user to the Provisioning Manager

▪ **New/Changed External Output:**

- Access to observed systems is done using a different user
- Configuration key SystemObservation.UserName is reported

▪ **Example:**

- Define user
 - ADDUSER (CPOCIM)
 - ALTUSER (CPOCIM) DFLTGRP(.....) OMVS(UID(.....)) PASSWORD(.....)
 - CONNECT (CPOCIM) GROUP(CFZUSRGP) AUTH(USE)
- Authorize CPOSRV
 - RDEFINE PTKTDATA IRRPTAUTH.CFZAPPL.CPOCIM
 - PERMIT IRRPTAUTH.CFZAPPL.CPOCIM CLASS(PTKTDATA) ID(CPOSRV) ACCESS(UPDATE)
- Define user to Provisioning Manager in PARM
 - SystemObservation.UserName=CPOCIM



Overview – Configurable CIM provider properties file

▪ **Problem Statement / Need Addressed**

- By default the Capacity Provisioning CIM provider properties file is located in the /etc directory and named cpopvider.properties
- The name and location could not be changed
- In some environments the /etc directory is shared across multiple systems:
 - This prevents system specific provider property settings

▪ **Solution**

- Make the name and location of the Capacity Provisioning CIM provider properties file configurable via an environment variable

▪ **Benefit / Value**

- Easier setup of multiple Capacity Provisioning domains in shared environments



Usage & Invocation – Configurable CIM provider properties file name

- **Invocation:**

- Define environment variable CPO_CIM_CONFIG_FILE in the **CIM Servers environment file** (default: /etc/wbem/cimserver.env)

- **New/Changed External Output:**

- None

- **Example:**

- Set the name of the CIM providers property file to /etc/cpoprovider.SYSA.properties:

- /etc/wbem/cimserver.env:

...

```
CPO_CIM_CONFIG_FILE=/etc/cpoprovider.SYSA.properties
```

...



Overview – JAVA V7 support

▪ **Problem Statement / Need Addressed**

- When running the Provisioning Manager, a Java Runtime Environment (JRE) is needed
- New versions of Java are available and may already be used

▪ **Solution**

- Support of JAVA V7 as runtime environment for the Provisioning Manager
- Support is optional as JAVA V6 is still supported and the default

▪ **Benefit / Value**

- Provisioning Manager can run with latest JAVA versions that are installed
- No migration necessary



Usage & Invocation – JAVA V7 support

- **Invocation:**

- Set environment variables LIBPATH in the ENV member for the Provisioning Manager (default: CPO.DOMAIN1.PARM(ENV))

- **New/Changed External Output:**

- None

- **Example:**

Set the environment variable in the ENV member:

```
...  
LIBPATH=/usr/lib:/usr/lpp/java/J7.0/bin:/usr/lpp/java/J7.0/bin/classic:/usr/lpp/cpo/lib  
...
```



Overview – Detailed domain report

▪ **Problem Statement / Need Addressed**

- When running the Provisioning Manager, the configured parameters are not visible
- Typing errors may result in incorrect behavior

▪ **Solution**

- Report unknown configuration parameters at start-up
- Add a parameter to the REPORT DOMAIN command that displays the settings from the PARM member

▪ **Benefit / Value**

- Incorrect settings can be detected at start-up
- Report contains the effective domain settings
- Information is available for problem reporting



Usage & Invocation – Detailed domain report

- **Invocation:**

- Requesting the domain report with new/additional parameters
 - REPORT DOMAIN TYPE=DETAILED

- **New/Changed External Output:**

- TYPE=DETAILED adds information to the report in the form key=value
- TYPE=NORMAL is the default and results in the same output as before

- **Example:**

```
F CPOSERV,APPL=R D TYPE=DETAILED
CPO1008I Domain report generated at 02/29/2013 14:12:56
...
Parm member entries:
  ARM.ElementName = SYSCPO
  ARM.ElementType = SYSCPM
  CIM.ModifyGroup = CPOCTRL
  CIM.ReadGroup = CPOQUERY
  Topology.Protocol = INTERNAL
  SystemObservation.UserName=CPOCIM
...
```



Overview – SNMP removal

▪ **Problem Statement / Need Addressed**

- With V2R1 SNMP is removed as supported protocol for hardware access
 - Migration is required when still using SNMP

▪ **Solution**

- Indicated SNMP configuration in previous releases
 - With a message at start-up
 - With an entry to z/OS Tracking Facility
- Migration is already described in R13 z/OS Migration book (previously optional, now required)

▪ **Benefit / Value**

- Only secure protocols are configurable



Usage & Invocation – SNMP removal

- **Invocation:**

- If starting the Provisioning Manager with SNMP configuration the program terminates
- Default protocol is changed to INTERNAL (BCPii)

- **New/Changed External Output:**

- Message CPO2005E at start-up when running with SNMP configuration
- Security warning if BCPii is not set-up correctly

- **Example:**

- CPO2005E The value for configuration key Topology.Protocol is out of range
- If BCPii is not set-up at all:
 - ICH408I USER() GROUP() NAME() HWI.APPLNAME.HWISERV CL(FACILITY)
INSUFFICIENT ACCESS AUTHORITY
ACCESS INTENT(READ) ACCESS ALLOWED(NONE)
 - CPO3041W Connection problem for getting the list of defined CPCs. Return information is
3842, 0, 0, 0, 0, 0



Overview – CPCC Removal

▪ Problem Statement / Need Addressed

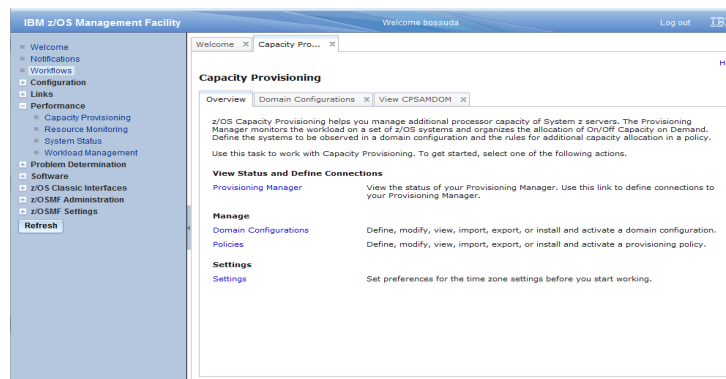
- With V2R1 the support for the Capacity Provisioning Control Center (CPCC) is removed

▪ Solution

- z/OS Management Facility Capacity Provisioning Task
 - Introduced in z/OS V1R13
 - Full replacement of CPCC functionality in V2R1
 - Full editing capability for Policies and Domain Configurations

▪ Benefit / Value

- Import/Export functionality
- Copy/Paste support
- No installation on local workstation required
- Multi User support



Usage & Invocation – CPCC removal

▪ **Invocation:**

- The CPCC is replaced by the Capacity Provisioning Task in the z/OS Management Facility (z/OSMF) Application
- The Capacity Provisioning Task is invoked from the overall z/OSMF Application under the Performance section
- Runs in the web browser and communicates with the z/OSMF Server running on z/OS.
 - No local installation on users workstation required

▪ **New/Changed External Output:**

- Capacity Provisioning Policies and Domain Configurations are stored on the z/OSMF server and can be shared among all users having access to z/OSMF
- Tree oriented CPCC users interface has been replaced with wizard style panels in the z/OSMF web user interface



Interactions & Dependencies

- **Software Dependencies**

- IBM 31-bit SDK for z/OS, Java Technology Edition, V7 (5655-W43)
- IBM z/OS Management Facility for z/OS V2R1

- **Hardware Dependencies**

- None

- **Exploiters**

- None



Migration & Coexistence Considerations

- Migration is required if your Provisioning Manager is still configured to use SNMP.
- SNMP Migration is documented in Migration book
 - Configure to run with BCPii
 - Authorize Provisioning Manager to BCPii and resources
- Migration is required for Capacity Provisioning Policies and Domain Configurations stored in CPCC:
 - Use z/OSMF Import function
 - Import from Domain (Provisioning Manager repository on z/OS)
 - Import from local file (CPCC workspace)



Presentation Summary

- Provisioning Manager user can be defined without password
- Provisioning Manager can be used with JAVA V7
- Location of the Capacity Provisioning CIM provider properties is customizable
- Detailed domain report displays information about the set-up of the domain parameters
- SNMP support is removed
- CPCC support is removed in support of z/OSMF



Appendix

- MVS Capacity Provisioning Users Guide, SC34-2661
- MVS System Messages Volume 4 (CBD – DMO), SA38-0671
- z/OS Migration, GA32-0889
- z/OS Management Facility online documentation
<http://publib.boulder.ibm.com/infocenter/zosmf/vxrx/index.jsp>

