IBM Education Assistance for z/OS V2R1

Item: IFL Support and Manage Resource
Element/Component: Capacity Provisioning

Material is current as of June 2013

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Trademarks

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

Presentation Objectives

- **IFL Support**
  - Support for IFL, ICF, and SAP processors from the z/OS console
- **Manage Resource**
  - New command to take over control of capacity that has not been activated by the Provisioning Manager
  - New command to report the status of the currently managed record

Overview – IFL support

- **Problem Statement / Need Addressed**
  - Only processors used by z/OS were supported by Capacity Provisioning
  - Different methods for activating different types of processors
- **Solution**
  - Enhance configuration report with information about IFL, ICF, and SAP capacity
  - Enhance ACTIVATE/DEACTIVATE RESOURCE commands to support IFL, ICF, and SAP processors
- **Benefit / Value**
  - Information about non-z/OS capacity is available to operators
  - non-z/OS processors can be activated and deactivated using console commands
  - Consistent method to handle zEnterprise processor capacity

Usage & Invocation – IFL Support

- **Invocation:**
  - Issuing REPORT CONFIGURATION command
- **New/Changed external output:**
  - Additional information about IFL, ICF, and SAP processors is available in the configuration report
- **Example:**

```
CPO1010I Configuration report generated at 01/16/2012 19:15:00
Domain configuration R35 for domain DOMAIN1 is enabled
CPC R35 with record 34937149 is enabled (default enabled)
 CPC is matched with serial 000020089F25 since 01/16/2012 17:41:03
 Hardware is of type 2817 with model M49
 Current model is 722 with 2224 MSU, 2 zAAPs, 1 zIIPs,
  22 IFLs, 0 ICFs, 9 SAPs
 Permanent model is 615 with 1084 MSU
 Hardware has 4 spare processors
 Activation limits are 5 zAAPs, 5 zIIPs, 5 IFLs, 5 ICFs, 5 SAPs
 Active resources GP/zAAP/zIIP 1140(7/1)/1/0
                  IFL/ICF/SAP     0/0/0
 Power save mode is disabled
```

Usage & Invocation – IFL Support continued

- **The support is invoked by**
  - Issuing the ACTIVATE / DEACTIVATE RESOURCE commands with additional optional parameters
    - IFL=number
    - ICF=number
    - SAP=number
- **New/Changed External Output:**
  - Activates and deactivates the corresponding temporary processors
  - Same behavior as for zIIP and zAAP processors

Overview – Manage Resource

- **Problem Statement / Need Addressed**
  - Capacity may be activated manually because
    - more capacity than authorized by the policy is needed
    - capacity is activated in advance based on knowledge not available to the Provisioning Manager
  - Manually activated capacity was not managed by the Provisioning Manager and must be deactivated manually
- **Solution**
  - Hand over manually activated capacity to let the Provisioning Manager deactivate the capacity when no longer needed according to the policy
  - Provide a report to show the status of the currently managed record
- **Benefit / Value**
  - Customer can manually activate and defer deactivation to the Provisioning Manager
  - Deactivation occurs based on Capacity Provisioning policy

Usage & Invocation – Manage Resource

- **Invocation:**
  - New Provisioning Manager command MANAGE RESOURCE with additional parameters
    - CPC=name
    - MODEL=target
    - ZAAP=number
    - ZIIP=number
    - KEEPTIME=minutes
- **New/Changed External Output:**
  - New messages acknowledging the command
  - Provisioning Manager manages all resources down to the specified target

Usage & Invocation – Manage Resource continued – 1

- **Invocation:**
  - New Provisioning Manager command REPORT RECORD with parameter
    - CPC=name
- **New/Changed External Output:**
  - New report showing information about the managed record

Usage & Invocation – Manage Resource continued – 2

Example:

```
CPO4430I Record report generated at 01/16/2012 17:36:49
Record Id:             A0123456 (On/Off CoD)
 CPC Name:             G14
 Management state:     provisioned
 Active resources:     145 MSU, 0 zAAPs, 0 zIIPs
                       0 IFLs, 0 ICFs, 0 SAPs
 Managed resources:    2 CPs, 0 CLIs, 0 zAAPs, 0 zIIPs
 Activation time:      01/16/2012 16:54:39
 Activation limits:    3 zAAPs, 3 zIIPs
                       3 IFLs, 3 ICFs, 3 SAPs
 Residual capacity:    150 MSU days,4 zAAP days, 5 zIIP days
                       1 IFL days, 1 ICF days, 1 SAP days
 Allowed models:
  Model  CP   CLI      MSU      MSU      MSU      MSU    Activation
                    original absolute relative  managed    type
    505   0    0         0      240     -145       --       MAN
    506   1    0        39      279     -106       --       MAN
    605   0    1        52      292      -93        0       MAN
    606   1    1        99      339      -46       47        PM
    705   0    2       123      363      -22       71        PM
End of record report
```

Migration & Coexistence Considerations

- Coexistence for management of manually activated capacity for z/OS V1R12 and z/OS V1R13 is available with APAR OA37450
- The coexistence APAR is required if you fall back to a previous release after running the Provisioning Manager on z/OS V2R1 and you have already issued the MANAGE RESOURCE command

Presentation Summary

- IFL, ICF, and SAP temporary processors can manually be managed using Provisioning Manager commands
- Manually activated general purpose, zAAP, and zIIP capacity can be managed by the Provisioning Manager
- Status of the currently managed record can be shown

Appendix

- MVS Capacity Provisioning Users Guide, SC34-2661
- MVS System Messages Volume 4 (CBD-DMO), SA38-0671
- z/OS Migration, GA32-0889