# Application Developers Controlled Distribution (ADCD) Release Guide z/OS 3.1 December Edition of 2024

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# Introduction:

This document provides you information regarding the contents of the ADCD December Edition of 2024. It also provides some additional notes and tips to effectively manage the ADCD system. The instructions for starting WAS, z/OSMF, Health Checker are also included in this document.

# Release Notes:

Listed below are modifications/enhancements incorporated into this ADCD December Edition of 2024.

The user IDs, ADCDA-ADCDZ and OPEN1-OPEN3, have been removed. If you need to create more user IDs, please use the example in ADCD.LIB.JCL(USERID2).

The default passwords for the IBMUSER and ADCDMST are the same as the user ID. You will be prompted to change the password at first logon.

With this release of ADCD, the z/OSMF Server and Angel are started at IPL using VTAMAPPL. This is a requirement to support the new function of JES2 Email Support delivered in z/OS 2.3. Additionally, the TSO logon procedures have been changed to end at the READY prompt. So, it will be necessary to type ISPF to access the ISPF panels.

Starting with ADCD 3.1A, RACF certificates were added to the base z/OS and the following components: TCP/IP, TN3270, z/OSMF, Zowe, z/OS Connect, and WAS. These certificates are generated at the very first IPL of your ADCD system.

Starting with ADCD 3.1C, in preparation for IMS NEXT, the IMS Catalog with Managed ACBs has been implemented as this will be a requirement to maintain IMS by June 2025. The address spaces for the Common Service Layer (Structured Call Interface, Operations Manager, Resource Manager) are automatically invoked during the Control Region initialization. The Repository Server for DRD management is now implemented and required for startup. OTMA and ODBM are also configured to work together with IMS Connect for client-side IMS applications. In this case, the address spaces for IMS Connect and ODBM should be initalized after the startup completion of IMS.

Several program products and subsystems were updated to use Java 11. However, Zowe 2.0 still requires Java 8 64-bit to operate.

The following z/OSMF functions were implemented:

- Software Management
- Performance
- Consoles
- Jobs and Resources (i.e.: SDSF Plugin)
- Rest Services
- z/OS Classic Interfaces
- z/OSMF JES2 Email Support

The option to use Secure SSL/TLS for TN3270 has been provided in this ADCD release.

Please reference the webpage section: **Announcements, Changes and Updates.**

The following products have been added:

- CICS TS V6.2
- IBM Open Enterprise Foundation for z/OS V1.1.0
- IBM Z Open Automation Utiities V1.3.0

The following products have been updated with the latest available version/release/modification level.

- IBM IMS V15.5

- IBM Open Enterprise SDK for GO V1.23
- IBM DevOps Deploy V8.0.1
- CICS Interdependency Analyzer for z/OS V6.1
- IBM Hourglass V8.1.0
- IBM Decision Runtime Manager V9.1.0
- IBM Application Discovery for IBM Z V6.1.3

Db2 V13 has been increased to 18,000 cylinders, and Installation Manager V9.0.5.16 increased to 20,000 cylinders. The other z/OS base, z/OS products and middleware volume sizes have been increased to mod-9 (10,017 cylinders) to provide more free space for expansion.

# Page Data Sets:

This ADCD system provides you with three volumes dedicated for page data sets, C3PAGA through C3PAGC. The contents of the volumes are listed below.

C3PAGA – SYS1.S0W1.PLPA.PAGE , SYS.S0W1.COMMON.PAGE , SYS1.S0W1.LOCALA.PAGE
C3PAGB – SYS1.S0W1.LOCALB.PAGE
C3PAGC – SYS1.S0W1.LOCALC.PAGE

The pre-configured loadparms that are meant for bringing up DB2 and WAS, use all of the above listed page data sets. The rest of the loadparms use only the ones on first two volumes listed above. Depending upon your requirement you can add or remove these page data sets using the example parameters below in IEASYSxx member after copying it to USER.PARMLIB.

```
PAGE=(SYS1.S0W1.PLPA.PAGE,
      SYS1.S0W1.COMMON.PAGE,
      SYS1.S0W1.LOCALA.PAGE,
      SYS1.S0W1.LOCALB.PAGE,L),
```

# Starting/Stopping IMS and Running Type-2 Commands:

Please note, the IMS V15.5 environment is now available with enhanced features. For more information about these features, please refer to the following blog post in the Dallas ISV Center Secure User Group: https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/ashley-lopez/2024/11/17/ims-tmdb-v155-with-enhanced-functionality

The instructions for starting and stopping IMS are the following:

Startup

1. /S IMS15RL1
2. /S IMS15CR1 (starts SCI, OM, RM procs during this initialization)
3. /S IMS15RS1 (necessary for the WTOR message to appear)
4. /R ##,/NRE CHKPT 0 FORMAT ALL
5. /S IMS15OD1
6. /S IMS15HWS

Shutdown (Note: Respond to IMS WTOR first, not IMS CONNECT WTOR)

1. /R ##,/CHE SNAPQ
2. /R ##,/CHE FREEZE
3. /F IMS15SCI,SHUTDOWN CSLLCL (or CSLPLEX) - takes down SCI, OM, RM, ODBM in succession
    1. CSLLCL - shuts down the common service layer (CSL) associated with a single z/OS in the IMSPlex
    2. CSLPLEX - shuts down the CSL associated with all z/OS images connected in the IMSPlex
4. /P IMS15RS1
5. /R ##,CLOSEHWS to the IMS CONNECT READY WTOR
    1. /P IMS15HWS - purging IMS Connect is not necessarily recommended but acceptable
6. /P IMS15RL1

The Single Point of Control application (TSO SPOC) is used to add, update/modify, and manage resource definitions. The QUERY and CREATE commands are introduced with the implementation of the IMS Repository.
To access the ISPF panel for TSO SPOC, go to:
- EXEC 'DFSF10.SDFSEXEC(DFSAPPL)' 'HLQ(DFSF10)'
- Select Option 1 for TSO SPOC.

You can test the following sample transaction to preview the repository functionality.
- Command: QUERY TRAN NAME(IVTNO) SHOW(ALL)
- Plex: PLEX1
- Route: IVP1

Additional information about TSO SPOC and type-2 commands can be found in the IBM Documentation.

# WLM configuration provided on ADCD z/OS:

The WLM configuration of application environments for DB2 Stored Procedures for DBDG are self-documented in the WLM application environment display.

For DBDG (DB2 V13) the comment describes the usage of each environment.

```
DBDGENV                          Default
DBDGENVC                         DSNWLM_DSNACICS
DBDGENVD                         DSNWLM_DEBUGGER
DBDGENVG                         DSNWLM_GENERAL
```

```
DBDGENVI                        Stored Procedure for IDAA
DBDGENVJ                        DSNWLM_JAVA
DBDGENVM                        DSNWLM_MQSERIES
DBDGENVO                        DSNWLM_JAVA_BIGMEM
DBDGENVP                        DSNWLM_PGM_CONTROL
DBDGENVR                        DSNWLM_REXX
DBDGENVU                        DSNWLM_UTILS
DBDGENVW                        DSNWLM_WEBSERVICES
DBDGENVX                        DSNWLM_XML
DBDGENV1                        DSNWLM_NUMTCB1

DBDGRFSH                        Stored Procedure REFRESH
```

## ACS routines provided on ADCD:

DB2 V13 requires that its Catalog and Directory be SMS managed. The ACS routines available on ADCD z/OS system were created to handle HLQ DSNCD10, which is the HLQ of the DB2 V13 Catalog and Directory. The logic is to use two qualifiers, first is DSNCD10 and the second is DSNDBC or DSNDBD. The DSNDBC and DSNDBD indicates the cluster and data portion of the VSAM data set of a DB2 Tablespace. Other datasets for DB2 V13 have a HLQ of DSND10 and these are not SMS managed. A DB2 STOGROUP called SYSSMS has been created for the Catalog and Directory Tablespaces with a VCAT of DSND10 and VOL of (*). The (*) is for SMS managed STOGROUP. The DB2 STOGROUP, SYSDEFLT uses VCAT of DSND10 and lists actual volumes and is not SMS managed. The installation is configured to use SYSSMS when creating the Catalog and Directory Tablespaces. If users create and specify a STOGROUP of their own or default to SYSDEFLT STOGROUP, their Tablespaces will fall into non-SMS managed volumes as specified in the STOGROUP.

The data class DCEXTEAV is defined to allow larger than four Gigabyte dataset allocation. With this data class and the accompanying storage group and class, a dataset can be allocated on the provided SMS managed volume C3USR1. The ACS routines are defined so no filtering is needed. To allocate and SMS managed dataset, specify the data class (DCEXTEAV) in the allocation JCL and the dataset will be defined on the provided volume. Below are the names of the Data class, Storage Group and Storage class for reference purposes:

| DCEXTEAV | Data Class |
|----------|-----------|
| SGEXTEAV | Storage Group |
| SCEXTEAV | Storage class |
| C3USR1 | Volume defined to SGEXTEAV (Storage Group) |

## zCX Container SMS environment

This is the link to the zCX Container Guide

https://www.ibm.com/servers/resourcelink/svc00100.nsf/pages/zosV2R5izso100/$file/izso100_V2R5.pdf

The data class CXDC is defined to allow larger than four Gigabyte dataset allocation. With this data class and the accompanying storage group and class, a dataset can be allocated on the provided SMS managed volume C3ZCX1. The ACS routines are used during provisioning of zCX Container.

Data class, Storage Group and Storage class for zCX Containers reference purposes:

| | |
|---|---|
| CXDC | Data Class for zCX |
| CXROOTSG | Storage Group |
| CXROOTSC | Storage class |
| C3ZCX1 | Volume size is 18,000 cylinders and defined in CXROOTSG (Storage Group) |

# Recreating the coupling data sets:

Below listed are the coupling data sets provided on ADCD.

```
SYS1.ADCDPL.CDS01
SYS1.ADCDPL.CDS02
SYS1.ADCDPL.CFRM.CDS01
SYS1.ADCDPL.CFRM.CDS02
SYS1.ADCDPL.LOGR.CDS01
SYS1.ADCDPL.LOGR.CDS02
SYS1.ADCDPL.OMVS.CDS01
SYS1.ADCDPL.OMVS.CDS02
SYS1.ADCDPL.WLM.CDS01
SYS1.ADCDPL.WLM.CDS02
```

In case any of these data sets are corrupted or become unusable, delete them and use the JCL available in the member ALOCCOPL in 'ADCD.LIB.JCL' data set, to allocate them again.
Note: Be sure to make the appropriate volume change that reflects the level of ADCD you are using.

**Note:** This procedure is provided to you, assuming that you have a thorough knowledge of setting up a SYSPLEX environment. These steps are a bit involved and could cause disruption of normal functioning of your ADCD system.

# Allocating DB2 archive logs into an esoteric device:

Additional storage volume C3DBAR has been defined and is pointed to by a new esoteric DBARCH, for DB2 archive logs. Instructions for adding more volumes to this esoteric is provided in this document below. Ensure to map this volume C3DBAR to device# 0AC3 in your devmap, so that it is in sync with the IODF definition.

In this edition of ADCD z/OS, the loadparms that are meant to bring up DB2, have been configured to use the esoteric device DBARCH for holding the DB2 archive logs. This means that the archive logs will go only into this volume (or volumes if you add more to the esoteric). You will still need to manage the space on the volume and delete archive logs that are no longer needed. The fourth qualifier in the data set name is a date of the format Dyynnn where "yy" is the year and "nnn" is the Julian day of the year. When you start DB2, examine the console log to see that it does not read any archive logs. If no archive logs are used at the start, then you have a clean start of DB2 and you can delete all the prior archive logs. If you are running DB2 and run out of space in the esoteric DBARCH volume(s), look at the SDSF console log for DB2 and determine the start date. Then you can delete archive logs prior to the start date of the last clean start of DB2. You should monitor the space available on your DBARCH esoteric volume(s). Better space management can be achieved by turning off logging on some of your Tablespaces, that can be recovered by just dropping, re-creating and re-loading. You can also reduce logging by using the LOG NO parm in your load utility job. You would need to reset the COPY pending flag with the NOCOPYPEND parm in the load utility or the REPAIR utility. Please note that these are to be used only for Tablespaces that you can recover on your own without any of DB2's recovery. A thoughtful management of DB2 archive logs is important in any DB2 environment - test, development or production.

Also note that, even though you delete the DSNx10.DBxG.ARCLOG1.Date.Time.**A0000000#** data sets you need to keep enough of the DSNx10.DBxG.ARCLOG1.Date.Time.**B000000#** data sets to cover two successful restarts of DB2. These are the backups for your BSDS data sets. If anything happens to your BSDS; you will need these backups to restore your BSDS.

The DBARCH esoteric is coded into DB2 ZPARM, via the link-edit JCL member DSNTIJUZ in DSNx10.NEW.SDSNSAMP. You can find the below parms coded under DSN6ARVP section of DSNTIJUZ. This information is provided here, just in case you want to create and update with a different esoteric other than the one provided.

```
            TSTAMP=YES,                                      X
            UNIT=DBARCH,                                     X
            UNIT2=
```

Follow the below instructions, if you need to add more volumes to the esoteric DBARCH.

The IODF file needs to be updated in order to make changes to an esoteric. The default active IODF in ADCD system is SYS1.IODF99. When we try to modify this, a temporary work IODF is created, which can be named as per our preference. In this case, let us name it SYS1.IODF03.WORK. Once the changes are done, this work file can be used to create a production IODF file, let us name it SYS1.IODF03. The system can be re-IPLed after changing loadparm to use IODF03 and check if the changes we have done are working properly. We can either continue to use IODF03 or copy it to IODF99. For copying to IODF99, we need to take a backup of IODF99 and then delete IODF99. After deleting IODF99, copy IODF03 to IODF99 and update the loadparm member to use IODF99.

1. Go to option M.4 from ISPF primary option menu, to enter into the HCD tool (Hardware Configuration Tools).

```
Command ===>

                            Hardware Configuration

Select one of the following.

__   0.  Edit profile options and policies
     1.  Define, modify, or view configuration data
     2.  Activate or process configuration data
     3.  Print or compare configuration data
     4.  Create or view graphical configuration report
     5.  Migrate configuration data
     6.  Maintain I/O definition files
     7.  Query supported hardware and installed UIMs
     8.  Getting started with this dialog
     9.  What's new in this release

For options 1 to 5, specify the name of the IODF to be used.

I/O definition file . . . 'SYS1.IODF99'                    +
```

2. Ensure that the default IODF file is selected as shown in above screenshot. Select option 1 (Define, Modify, or View Configuration Data).

```
C  ───────── Define, Modify, or View Configuration Data ─────────  _

     Select type of objects to define, modify, or view data.

S        __ 1. Operating system configurations
                consoles
1               system-defined generics
                EDTs
                  esoterics
                  user-modified generics
            2. Switches
                ports
                switch configurations
                  port matrix
            3. Processors
                channel subsystems
                  partitions
F                 channel paths
            4. Control units
I           5. I/O devices
            6. Discovered new and changed control units and I/O devices
```

3. Select option 1 (Operating System Configurations). Type '/' to select Config. ID OS390 in the next screen and press enter.

```
--------------------------------------------------------------------------
                      Operating System Configuration List          Row 1 of 1
Command ===> _____ Scroll ===> PAGE

Select one or more operating system configurations, then press Enter. To
add, use F11.

/ Config. ID  Type    Gen  Description                      D/R site OS ID
/ OS390       MVS          ADCD ZOS IODF
******************************** Bottom of data ********************************
```

4. A pop-up window is thrown as shown below, select option 5 (Work with EDTs) in this pop-up.

```
------------- ┌─────────── Actions on selected operating systems ──────────┐
              │                                                              │
Command ===>  │ Select by number or action code and press Enter.             │
              │                                                              │
Select one or │                                                              │
add, use F11. │ __  1.  Add like  . . . . . . . . . . . . . (a)               │
              │     2.  Repeat (copy) OS configurations . . (r)              │
/ Config. ID  │     3.  Change  . . . . . . . . . . . . . . (c)              │
/ OS390       │     4.  Delete  . . . . . . . . . . . . . . (d)              │
**************│     5.  Work with EDTs  . . . . . . . . . . (s)              │  *
              │     6.  Work with consoles  . . . . . . . . (n)              │
              │     7.  Work with attached devices  . . . . (u)              │
              │     8.  View generics by name . . . . . . . (g)              │
              │     9.  View generics by preference value . (p)              │
              │                                                              │
              └──────────────────────────────────────────────────────────────┘
```

5. Now it throws a list of EDTs, select EDT# 00, by typing '/' and press enter.

```
  -  |    Goto  Backup  Query  Help
     |  ---------------------------------------------------------------------
  C  |                                                                Row 1 of 1
     |  Command ===> _____ Scroll ===> PAGE
  S  |
  a  |  Select one or more EDTs, then press Enter. To add, use F11.
     |
  /  |  Configuration ID . . : OS390        ADCD ZOS IODF
  /  |
  *  |  / EDT Last Update By      Description                                    *
     |  / 00  2012-05-17  IBMUSER  Add new esoterics
     |  ************************** Bottom of data ******************************
```

6. Throws another pop-up with actions to be performed on EDTs, select option 4 (Work with esoteric).

```
  -  |    Goto  Backup  Query  Help                                        |
     |  ---------  ------------------ Actions on selected EDTs --------------
  C  |                                                                     |
     |  Command =   |                                                      |
  S  |            | Select by number or action code and press Enter.      |
  a  |  Select on |                                                        |
     |            | 4_  1.  Repeat (copy) EDTs . . . . . . . . (r)         |
  /  |  Configura |     2.  Change  . . . . . . . . . . . . . (c)         |
  /  |            |     3.  Delete  . . . . . . . . . . . . . (d)         |
  *  |  / EDT Las |     4.  Work with esoterics . . . . . . . (s)         |
     |  / 00  201 |     5.  Work with generics by name  . . . (g)         |
     |  ********* |     6.  Work with generics by pref. value . (p)       |
     |            |                                                        |
```

7. This lists the esoteric already available, select the esoteric DBARCH by typing '/' and press enter for further options.

```
 -  ||    Goto  Filter  Backup  Query  Help
    ||   ----------------------------------------------------------------------
 C  ||                                                             Row 1 of 7
    ||   Command ===> _____  Scroll ===> PAGE
 S  ||
 a  ||   Select one or more esoterics, then press Enter. To add, use F11.
    ||
 /  ||   Configuration ID . : OS390        ADCD ZOS IODF
 /  ||   EDT identifier . . : 00           Add new esoterics
 *  ||
    ||   / Esoteric  VIO    Token  State
    ||   _ DASD      Yes    1
    ||   / DBARCH    Yes    3
    ||   _ SORT      Yes    5
    ||   _ SYSDA     Yes    7
    ||   _ TEMP      Yes    9
    ||   _ VIO       Yes    11
    ||   _ WORK      Yes    13
    ||   ***************************** Bottom of data ******************************
```

8. Select option 4 (Assign devices).

```
 -  ||    Goto  Filter  Backup  Query  Help
    ||   ---------           ------- Actions on selected esoterics -------
 C  ||
    ||   Command =
 S  ||               Select by number or action code and press Enter.
 a  ||   Select on
    ||             4_   1.  Repeat (copy) esoterics . . . . . . (r)
 /  ||   Configura        2.  Change   . . . . . . . . . . . . . (c)
 /  ||   EDT ident        3.  Delete   . . . . . . . . . . . . . (d)
 *  ||                    4.  Assign devices  . . . . . . . . . . (s)
    ||   / Esoteri        5.  View assigned devices . . . . . . . (v)
    ||   _ DASD
    ||   / DBARCH
    ||   _ SYSDA
    ||   _ VIO       Yes    ____
    ||   **************************** Bottom of data ******************************
```

9. Throws a pop-up window with list of devices available, select the appropriate device or device range that you want to add to this esoteric. In the screenshot below, we are trying to add one additional device at address 0AA7. Change the status of 'Assigned' column from 'No' to 'Yes' across the device range that you want to add and also specify the starting device address, and number of devices to add a range.



10. On pressing enter after above selections, a pop-up window is thrown to capture the details for creating a work IODF file that will capture the changes.

11. On pressing enter, now it shows the updated list of devices assigned. As device# 0AA6 was already assigned, now with 0AA7 added, it shows 2 devices in that range.

```
    -      Goto  Filter  Backup  Query  Help
           ----------------------------------------------------------------
    C                                                            Row 11 of 17
           Command ===> _____    Scroll ===> PAGE
    S
    a      Specify Yes to assign or No to unassign.

    /      Configuration ID . : OS390         ADCD ZOS IODF
    /      EDT.Esoteric . . . : 00.DBARCH     VIO eligible . : No
    *
                                      Generic          Starting  Number of
           Devices      Device Type   Name    Assigned  Number   Devices
           0900,13      3270-X        3277-2   No       _____    ____
           090E,18      3270-X        3277-2   No       _____    ____
           0A80,38      3390          3390     No       _____    ____
           0AA6,2       3390          3390     Yes      _____    ____
           0AA8,72      3390          3390     No       _____    ____
           0E20,4       CTC           CTC      No       _____    ____
           0E40,4       CTC           CTC      No       _____    ____
           *************************** Bottom of data ***************************

    L
```

12. Now, go back to primary option menu of HCD and select option 2 (Activate or process configuration data) against the work IODF file that we just created.

```
Command ===> _____

                        Hardware Configuration

Select one of the following.

2    0.  Edit profile options and policies
     1.  Define, modify, or view configuration data
     2.  Activate or process configuration data
     3.  Print or compare configuration data
     4.  Create or view graphical configuration report
     5.  Migrate configuration data
     6.  Maintain I/O definition files
     7.  Query supported hardware and installed UIMs
     8.  Getting started with this dialog
     9.  What's new in this release

For options 1 to 5, specify the name of the IODF to be used.

I/O definition file . . . 'SYS1.IODF03.WORK'                    +
```

13. Select option 1 (Build production I/O definition file) as shown below.

```
C
         Select one of the following tasks.

S    1_    1.  Build production I/O definition file
           2.  Build IOCDS
2          3.  Build IOCP input data set
           4.  Create JES3 initialization stream data
           5.  View active configuration
           6.  Activate or verify configuration
               dynamically
           7.  Activate configuration sysplex-wide
           8.  *Activate switch configuration
           9.  *Save switch configuration
           10. Build I/O configuration data
           11. Build and manage S/390 microprocessor
               IOCDSs and IPL attributes
F          12. Build validated work I/O definition file    ed.

I    * = requires TSA I/O Operations                          +
```

14. The changes made are verified and if any errors / warnings are displayed at this stage. A warning message as shown below, can be ignored.

```
Save  Query  Help
-----------------------------------------------------------------
                                                      Row 1 of 2
Command ===> _____  Scroll ===> PAGE

Messages are sorted by severity. Select one or more, then press Enter.

/ Sev Msg. ID  Message Text
/ W    CBDA333I EDT 00 of OS configuration OS390 does not use tokens for
#              its esoterics.
****************************** Bottom of data ********************************
```

15. Press F3 to go back and create the production IODF file, call it 'SYS1.IODF03', specify the volume and hit enter.
    **Note:** The volume specified here should be the same volume as where IODF99 is residing.

```
C
                      ──── Build Production I/O Definition File ────
    S

S   1   Specify the following values, and choose how to continue.

    2   Work IODF name . . . : 'SYS1.IODF03.WORK'

        Production IODF name . 'SYS1.IODF03'_____
        Volume serial number . SDSYS1  +

        Continue using as current IODF:
        2   1.  The work IODF in use at present
            2.  The new production IODF specified above



    F

    I   * = requires TSA I/O Operations                          +
```

16. Throws a pop-up window for descriptor fields as shown below, hit enter again.

```
C
                      ──── Build Production I/O Definition File ────
    S

S   1   Specify the following values, and choose how to continue.

    2   Work IODF name . . . : 'SYS1.IODF03.WORK'

        Production IODF name . 'SYS1.IODF03'
        Vo ──────────────── Define Descriptor Fields ────
        Co
        2     Specify or revise the following values.

              Production IODF name   . : 'SYS1.IODF03'

              Descriptor field 1  . . . SYS1
    F         Descriptor field 2  . . . IODF03

    I   * = re
```

17. You should get a message for successful creation as shown below.

```
                       C
                             Select one of the following tasks.

                       S    1    1.  Build production I/O definition file
                                   2.  Build IOCDS
                       2         3.  Build IOCP input data set
                                   4.  Create JES3 initialization stream data
                                   5.  View active configuration
                                   6.  Activate or verify configuration
                                       dynamically
                                   7.  Activate configuration sysplex-wide
                                   8.  *Activate switch configuration
                                   9.  *Save switch configuration
                                  10.  Build I/O configuration data
                                  11.  Build and manage S/390 microprocessor
                                       IOCDSs and IPL attributes
                       F          12.  Build validated work I/O definition file    ed.

                       I     * = requires TSA I/O Operations                          +

                             ┌────────────────────────────────────────────┐
                             │ Production IODF SYS1.IODF03 created.        │
                             └────────────────────────────────────────────┘
```

18. Come out of HCD and create a new loadparm member (using LOADCS as a template) as shown below, to use IODF03, by changing the IODF parm value from 99 to 03.

```
EDIT        SYS1.IPLPARM(LOAD01)  - 01.00           Columns 00001 00072
Command ===>                                          Scroll ===> CSR
****** ************************************* Top of Data *****************************
000001 IODF      03 SYS1
000002 SYSCAT    Z1SYS1113CCATALOG.Z21Z.MASTER
000003 SYSPARM   CS
000004 IEASYM    00
000005 PARMLIB   USER.PARMLIB                               Z1SYS1
000006 PARMLIB   ADCD.Z21Z.PARMLIB                          Z1RES1
000007 PARMLIB   SYS1.PARMLIB                               Z1RES1
000008 NUCLEUS   1
000009 SYSPLEX   ADCDPL
****** ************************************* Bottom of Data ***************************
```

19. IPL the system with loadparm '01' to ensure that IODF03 works without any issues. If you want to continue using IODF03, modify other loadparms that you need, to use IODF03. Otherwise if you want to copy the changes to IODF99, take a backup of IODF99 using option 6 (Maintain I/O definition files) and then option 2 (Copy I/O definition file). After taking a backup, delete IODF99 file and repeat the same options 6 and 2 to copy IODF03 into IODF99.

## Steps for dumping SMF data into GDG data sets

The system is configured to clear SMF data using the procedure SMFCLEAR. This procedure is triggered by the exit routine IEFU29, the source code of which is available in ADCD.LIB.JCL. In case, you wish to save the SMF data into GDG data sets, this exit routine needs to be modified to invoke procedure SMFDUMPS. Edit the routine IEFU29 to change occurrences of string SMFCLEAR to SMFDUMPS and assemble / link-edit the load module using the JCL member IEFU29@, also available in ADCD.LIB.JCL. The system needs to be re-IPLed for this to take effect. A GDG base SYS1.SMF.DATA has already been defined using the JCL in ADCD.LIB.JCL(SMFGDG). The procedures SMFCLEAR and SMFDUMPS are available in ADCD.Z31C.PROCLIB.

## Using the esoteric devices

Esoteric devices called WORK, TEMP and SORT have been defined and mapped to devices in the range 0600 – 060 F. Create emulated 3390 volumes in your zPDT system and map them to these device address via the devmap file, in order to use these esoterics. Also note that the appropriate VATLSTxx member (volume attribute list) should be updated with necessary statement, as shown highlighted in below sample. In this example, we want to use volumes WORK01 through WORK12, which is marked as WORK*. This member defines the mount and use attributes of direct access volumes.

```
VATDEF IPLUSE(PRIVATE),SYSUSE(PRIVATE)
C3SYS1,0,0,3390    ,Y
WORK* ,0,0,3390    ,Y
```

## Steps for starting IBM Health Checker for z/OS

With this edition, IBM Health Checker has been pre-configured to start automatically.

This utility can be started manually with the below start command.

```
/START HZSPROC
```

http://www-03.ibm.com/systems/z/os/zos/hchecker/index.html

For stopping issue the below command manually or include it in your shutdown script SHUTxx in parmlib.

```
/STOP HZSPROC
```

## Steps for starting IBM zOWE Distribution v2.0.0

The zOWE started task is auto started on ADCD with loadparm ZE. Due to the need for z/OSMF product to be fully initialized, verify that you can logon to z/OSMF first before attempting to log onto Zowe Desktop.

For other loadparms that do not autostart Zowe, the following can be used to manually initiate Zowe started tasks.

S ZWESISTC

The Cross Memory Server will initialize quickly.

S ZWESLSTC

The Application Server will start and after several minutes several processes will start up and run for some length of time. Currently there is no message that comes out letting you know when zOWE is completely initialized. This could take several minutes before you can logon to the Desktop.

The URL below is the Zowe Desktop.

https://10.1.1.2:7554/zlux/ui/v1/ZLUX/plugins/org.zowe.zlux.bootstrap/web/index.html

# Steps for starting IBM z/OS Management Facility (z/OSMF)

All loadparm's have been configured to start the z/OSMF product using VTAMAPPL at IPL. The CIM (Common Information Model) server is no longer required to start z/OSMF.

This might take 20 plus minutes to come up, depending upon your zPDT system. Look for the below messages for successful start of the z/OSMF.

```
S IZUANG1
CWWKB0056I INITIALIZATION COMPLETE FOR ANGEL
S IZUSVR1 IZUG400I: The z/OSMF Web application services are initialized.

+ CWWKF0011I: The server zosmfServer is ready to run a smarter planet.
```
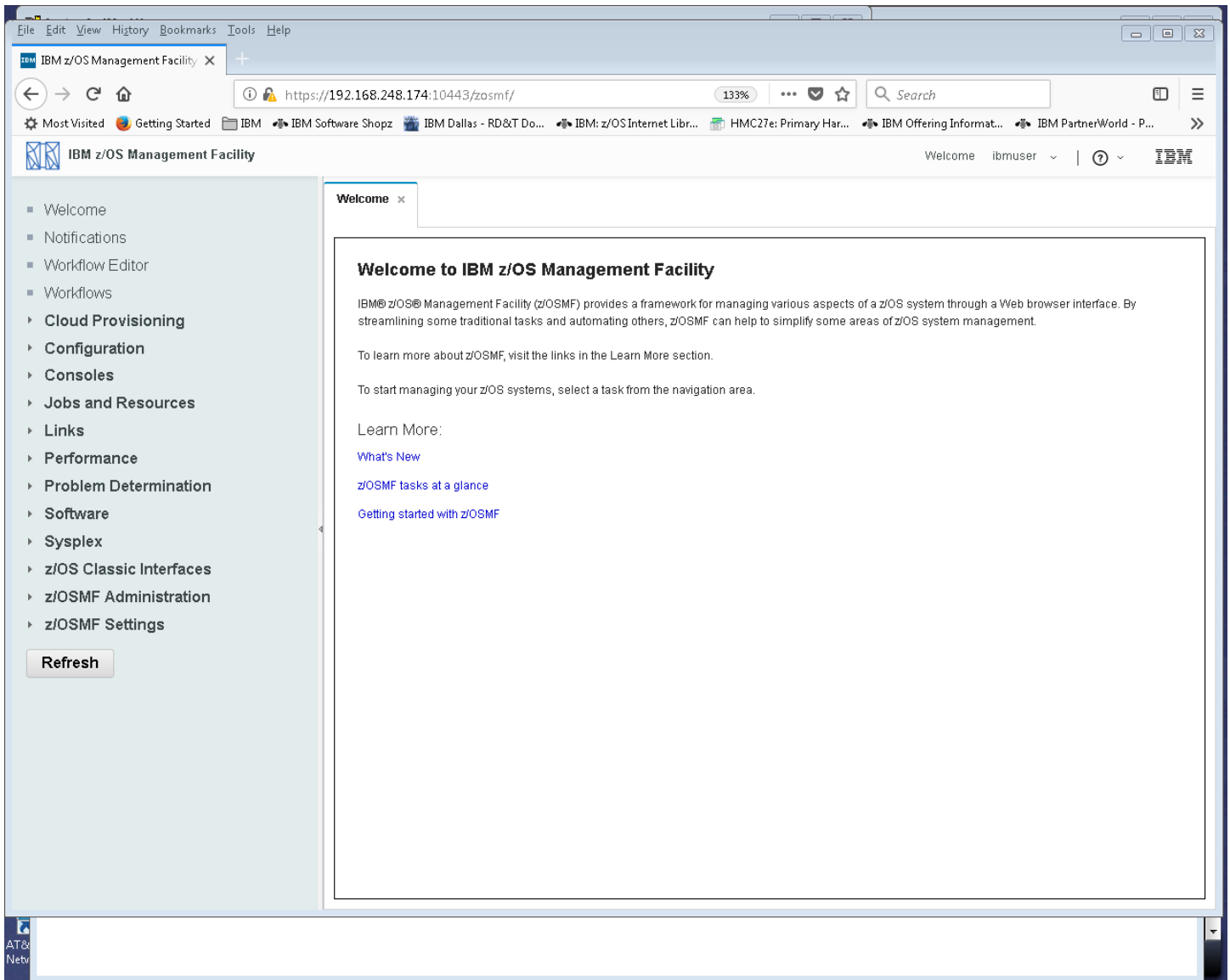
The z/OSMF console can be accessed by using the below URL.

https://s0w1.dal-ebis.ihost.com:10443/zosmf

The initial login screen is as shown in below screenshot.

The welcome screen of z/OSMF console is shown in below screenshot.
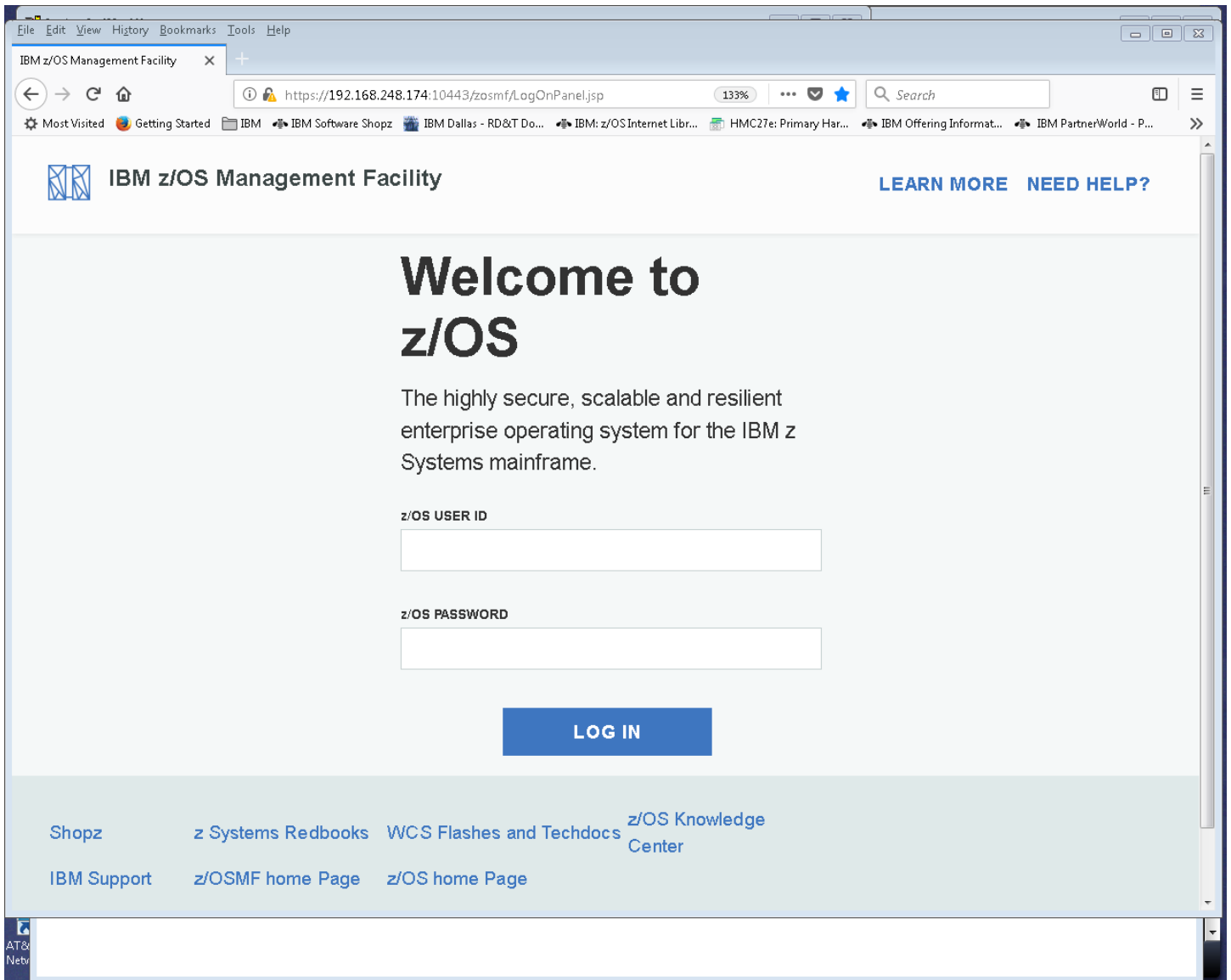
The commands for stopping z/OSMF are listed below.

```
P IZUSVR1
P IZUANG1
```

# Steps for starting WebSphere Application Server (WAS V9.0)

It is recommended to have more than 4 GB real memory on your system and code at least 3000m (3 GB) in the devmap. IPL the system with loadparm WA and follow the below steps to bring up WAS V9.0:

1)  Issue the below command from SDSF, to start the Deployment Manager. In SDSF, type / and hit enter to get the System Command Extension window.
    ```
    START XADCR,JOBNAME=XADMGR,ENV=XACELL.XADMNODE.XADMGR
    ```

```
 --        Edit  Options  Help                                            --
 SD      _____
 CO                        System Command Extension
 N O                                                                       SE
 NCO     ===> START XADCR,JOBNAME=XADMGR,ENV=XACELL.XADMNODE.XADMGR
 MRO     ===> _____          26
 LR                                                       STORELIMIT       ER
 LR      Comment  _____                    1
 DR
 DR      Group    _____   Show *_____   (F4 for list)
 DR                                                     More:        +
 DR      =>
 DR      =>                                                                F
 DR      =>                                                                FA
 DR      =>                                                                VS
 DR      =>                                                                ST
 DR      =>                                                                SR
 DR      =>                                                                SR
 DR      =>                                                                P
 DR                                                                        RT
 ER      F5=FullScr F6=Details F7=Up F8=Down F10=Save F11=Clear F12=Cancel
 N O                                                                       SE
 ***                                                                       **
```

2)  This December take several minutes, look for the below message in the System log:

    ```
      BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 478 PROCESS
    XADMGR.
    ```

3)  After receiving above message issue the next command to start the Node Agent

    ```
    START XAACR1,JOBNAME=XAAGNT1,ENV=XACELL.XANODE1.XAAGNT1
    ```

4)  This December take several minutes, look for the below message in the System log

    ```
      BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 346 PROCESS
    XAAGNT1.
    ```

5)  Now try to connect to the Admin console from your browser using a valid user ID and password through the following link:

    https://s0w1.dal-ebis.ihost.com:9306/ibm/console

6) You should get a logon screen like shown below. Login with a valid user ID and password.



7) The Application Server can be started from the Admin console as shown below. Go to Servers → Server Types → WebSphere application servers. The server XASR011 should be listed on the right side panel.
Select it by checking the box against it and click on the 'Start' button to start the application server.
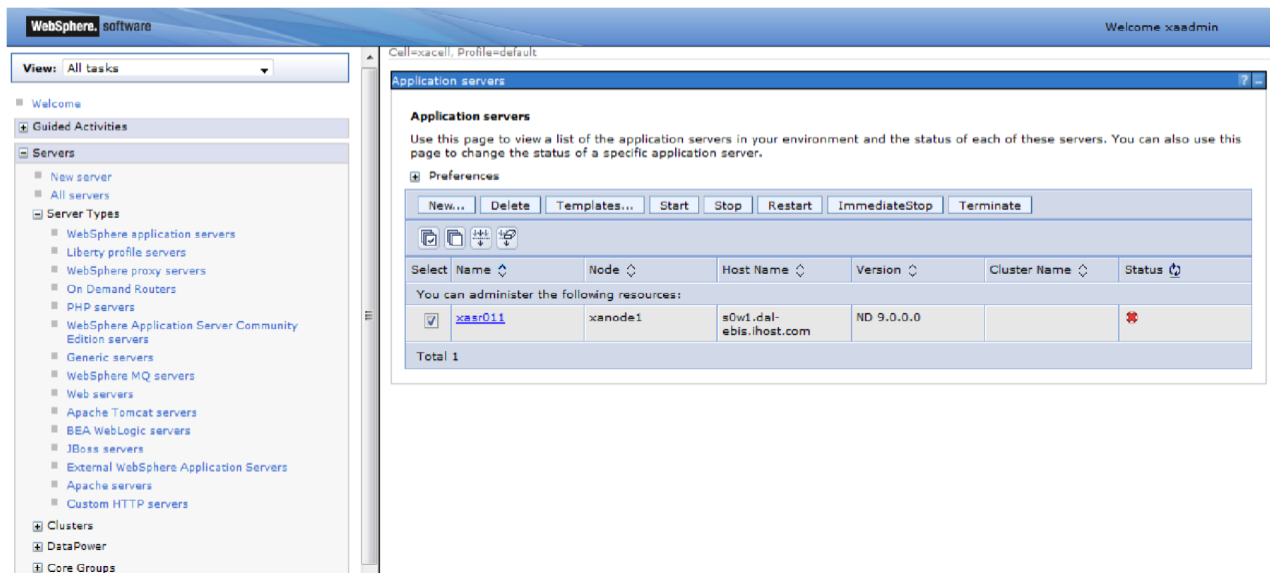


8) This may take several minutes, look for the below message in the System log

```
   BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 541   PROCESS
XASR011.
```

The status of the server turns into green arrow, indicating that it is started now.
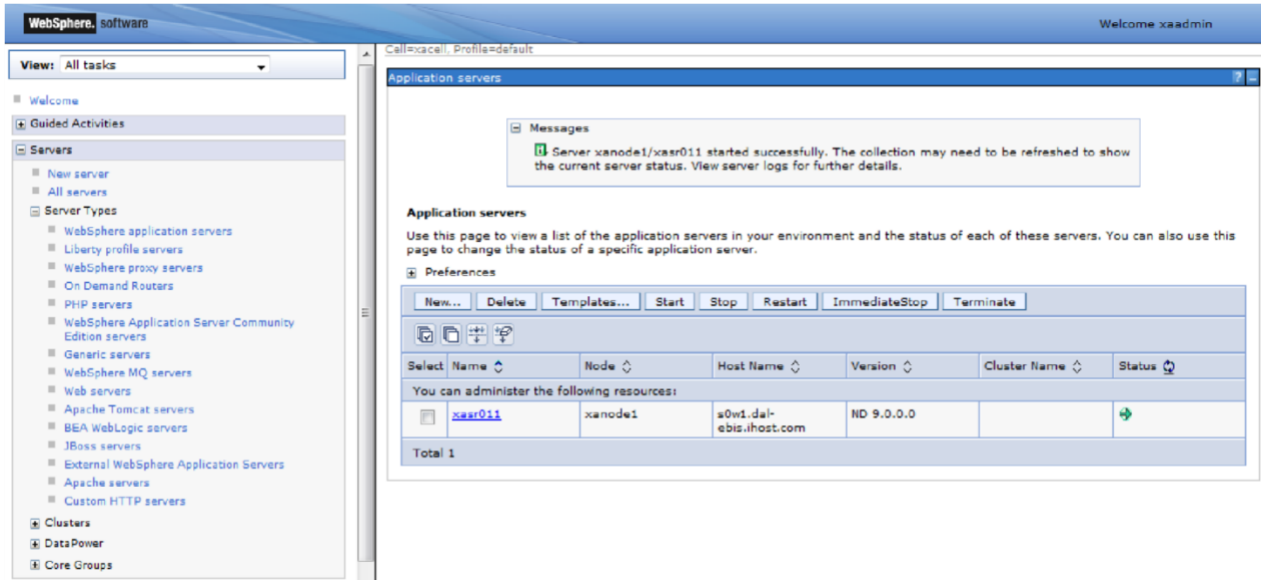


9) The application server can be stopped from the browser itself, by selecting the server and clicking on the 'Stop' button. Click OK on the confirmation message to stop the server. Alternatively, a stop command can also be issued from the SDSF:

```
/P XASR011
```

10) Look for the below message to confirm that the application server is shut down normally.

```
BBOO0002I WEBSPHERE FOR Z/OS CONTROL PROCESS XASR011 ENDED NORMALLY.
```

11) Issue the below command, to stop the Deployment Manager and Node Agent

```
/P XADEMN
```

12) This will take several minutes, look for the below message for normal completion.

```
BBOO0008I WEBSPHERE FOR Z/OS DAEMON S0W1 ENDED NORMALLY.
```

# LOADPARMs option

Table Listing of available pre-configured distributed LOADPARMS.

| LOADPARM | Description |
| --- | --- |
| CS | CLPA and Cold start of JES2. Base z/OS system functions i.e. no CICS, DB2, IMS, WAS, etc. |
| WS | CLPA and Warm start of JES2. Base z/OS system functions i.e. no CICS, DB2, IMS, WAS, etc. |
| CI | CLPA and Warm start of JES2. Loads CICS 6.2 & 6.1 libraries. Starts up CICS 6.2, z/OSMF and IDz. |
| DB | CLPA and Warm start of JES2. Loads DB2 V13 libraries. Starts up DB2 V13, z/OSMF and IDz. |

| | |
|---|---|
| IM | CLPA and Warm start of JES2. Loads IMS 15 libraries. Starts up IMS 15, z/OSMF and IDz. |
| IZ | CLPA and Warm start of JES2. Starts up z/OSMF and IDz. |
| WA | CLPA and Warm start of JES2. Loads WAS v9. Starts up z/OSMF and IDz. WAS needs to be manually started. |
| AL | NOTE: If doing Cloud Provisioning, you should use the AL load parm. CLPA and Warm start of JES2. Loads all middleware libraries. Starts up CICS 6.2, DB2 V13, IMS 15, z/OSMF, IDz and UCD. WAS needs to be manually started. |
| DC | CLPA and Cold start of JES2. Loads CICS, DB2 libraries. Starts up CICS 6.2, DB2 V13, UCD 8.0.1, RTC 7.0.3, IDz and UCD. |
| ZE | CLPA and Warm start of JES2. Loads all middleware libraries. Starts up z/OSMF, Zowe, IDz, and UCD. Other subsystems need to be manually started if desired. |

## TSO Logon Procedure Options

Table listing of available TSO logon procedures.

| Logon Procedure | Description |
|---|---|
| ISPFPROC | Standard ISPF logon procedure |
| ISPFLITE | Minimal ISPF logon procedure |
| DBSPROCD | Db2 V13 logon; use when Db2 V13 to access complete features |