Application Developers Controlled Distribution (ADCD) z/OS V1R13 July 2013

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Introduction:

This document provides you information regarding the contents of the ADCD z/OS R13 July 2013 Edition DVDs. 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 some of the enhancements incorporated into this ADCD z/OS R13 July 2013 Edition.

1) The LOADPARMs have been re-vamped to speed the ADCD build and test process. The 27 LOADPARMs from January 2013 were consolidated to 9 in ADCD July 2013 edition. Check the ADCD July 2013 webpage for details.

2) CICS 5.1 has been included and pre-configured to start up automatically using the loadparm CI.

3) CICS 4.1 has been removed from ADCD, but is available as a download only option from the ADCD download website.

4) The following products are added to the ADCD z/OS R13 July 2013 suite
   ➢ Interdependy Analyzer for CICS for z/OS V5.1
   ➢ CICS Deployment Assistant V5.1
   ➢ IMS Batch Backout Manager for z/OS V1.1
   ➢ IMS Buffer pool analyzer for z/OS V1.3
   ➢ IMS Command Control facility for z/OS V2.1
   ➢ IMS Network compression facility for z/OS V1.1
   ➢ IMS High performance SYSGEN Tools for z/OS V2.2
   ➢ IMS Program restart facility for z/OS V2.1

5) Both the Target and Distribution libraries of z/OS products are now made available in the FDPRD* volumes.

6) Rational Developer for System z(RDz) has been pre-configured to start up automatically using the loadparms CI,DB,IZ,IM,WA and AL.

DVD Contents:

Each of the DVD's contains a script named dvd#. This script will load the contents of that disk to a directory path set by variable $ADCD_PATH. The script is set up to be run under root userid. Sample unload scripts are found in the unzip directory on each DVD. The target directory should have a free space of about 190 GB to hold all the 54 volumes (unzipped) available from all 10 DVDs.

The target directory for unloading your ADCD system into, can be set by exporting the variable $ADCD_PATH, as shown below example:

```
export ADCD_PATH=/local/z113f /* files would be unzipped to /local/z113f */
echo $ADCD_PATH            /* display the variable to verify setting  */
```

Execute the following commands on the volume files, after they are unzipped:

```
chmod 755 f*.bin               /* set the access rights for the volumes */
chown ibmsys1:ibmsys f*.bin    /* change the ownership to user ibmsys1  */
```

The DVD packet is organized as follows:

DVD1 - Base z/OS system volumes, Stand-alone RES Volume and Distribution Libs 1, 2, 3 and 4

```
sares1.gz – Stand-alone RES
fdres1.gz - SYSRES1
fdres2.gz - SYSRES2
fdsys1.gz - IPLPARM, JES2 SPOOL, Storage
fduss1.gz – USS files
fduss2.gz – USS files
fddis1.gz - Distribution Libraries
fddis2.gz - Distribution Libraries
fddis3.gz - Distribution Libraries
fddis4.gz - Distribution Libraries
/unzip directory contains simple scripts for unloading the DVD
devmap.z113f.txt - Sample zPDT devmap
```

DVD2 – Production packs 1, 2 and 3 / Page Volumes a, b and c

```
fdprd1.gz - z/OS product pack
fdprd2.gz - z/OS product pack
fdprd3.gz - z/OS product pack
fdpaga.gz - Page volume (PLPA, Common & Local)
fdpagb.gz - Page volume (Local)
fdpagc.gz - Page volume (Local)
/unzip directory contains simple scripts for unloading the DVD
```

DVD3 – Production packs 4 and 5 /   Page Volumes d, e and f

```
fdprd4.gz - z/OS product pack
fdprd5.gz - z/OS product pack
fdpagd.gz - Page volume (Local)
fdpage.gz - Page volume (Local)
fdpagf.gz - Page volume (Local)
/unzip directory contains simple scripts for unloading the DVD
```

DVD4 – IMS 11.1, 12.1 / IMS Utilities Volume 1 / zOSMF R13 Volume 1 and 2

```
fdimb1.gz - IMS 11.1
fdimc1.gz - IMS 12.1
fdimu1.gz - IMS Utils
fdbbn1.gz – zOSMF R13 Volume 1
fdbbn2.gz – zOSMF R13 Volume 2
/unzip directory contains simple scripts for unloading the DVD
```

DVD5 – zOSMF R13 Volumes 3 / Tivoli OMEGAMON XE for DB2 on z/OS Performance Expert 5.1 / IMS Utilities Volumes 2 and 3/ CICS 5.1 and 4.2

```
fdimu2.gz - IMS Utils
fdimu3.gz - IMS Utils
fdbbn3.gz – zOSMF R13
fdc421.gz - CICS 4.2
fdc511.gz - CICS 5.1
fdkan1.gz - Tivoli OMEGAMON XE for DB2 on z/OS Performance Expert 5.1
fddbar.gz – for allocating DB2 Archive Logs (map this to 0AA3 in devmap)
/unzip directory contains simple scripts for unloading the DVD
```

DVD6 - DB2 9.1 and 10.1/ WAS 8.0 Volume 2

```
fddb91.gz - DB2 9.1
fddb92.gz - DB2 9.1
fddb93.gz - DB2 9.1
fddba1.gz - DB2 10.1
fddba2.gz - DB2 10.1
fddba3.gz - DB2 10.1
fdw802.gz - WAS 8.0 Volume 2
/unzip directory contains simple scripts for unloading the DVD
```

DVD7 - WAS 8.0 Volumes 1, 3, 4, 5 and 6

```
fdw801.gz - WAS 8.0 Volume 1
fdw803.gz - WAS 8.0 Volume 3
fdw804.gz - WAS 8.0 Volume 4
fdw805.gz - WAS 8.0 Volume 5 - Configuration zFS
fdw806.gz - WAS 8.0 Volume 6 - Configuration zFS
/unzip directory contains simple scripts for unloading the DVD
```

DVD8 – WAS 8.5 Volume 3, 4, 6 and 7

```
fdw853.gz - WAS 8.5 Volume 3
fdw854.gz - WAS 8.5 Volume 4
fdw856.gz - WAS 8.5 Volume 6 - Configuration zFS
fdw857.gz - WAS 8.5 Volume 7 - Configuration zFS
/unzip directory contains simple scripts for unloading the DVD
```

DVD9 - WAS 8.5 Volumes 1, 2 and 5

```
fdw851.gz - WAS 8.5 Volume 1
fdw852.gz - WAS 8.5 Volume 2
fdw855.gz - WAS 8.5 Volume 5
/unzip directory contains simple scripts for unloading the DVD
```

DVD10 - Rational Team Concert 4.0

```
fdblz1.gz – Rational Team Concert 4.0 Volume 1
fdblz2.gz – Rational Team Concert 4.0 Volume 2
/unzip directory contains simple scripts for unloading the DVD
```

IMS 12.1 unable to open WADS logs:

When starting the product IMS 12.1, the following message will be issued. This is a known problem happening only in zPDT environment.

DFS3256I OPEN FAILED ON *ddname* - DD CARD SPECIFICATION ERROR

Explanation

The log data set specified on the ddname could not be opened or allocated for logging, because the DD statement was not correctly specified or because the preallocated data set had inconsistent DCB attributes.
The first form of this message applies to log write operations for either an online log data set (OLDS), or a write-ahead data set (WADS).

The second form of this message is issued under these conditions:

• When an OLDS is opened that has a different block size (BLKSIZE) from the value displayed in message DFS2207I.
• When a write-ahead data set (WADS) is opened which does not have sufficient space allocated.
• When the RECFM is not VB.
• When an extended format OLDS was found and this release of IMS cannot use an extended format OLDS.

The third form of the message appears when the GETMAIN storage is not available for the OSAM DCB required for a log read operation. It is also issued when the OSAM OPEN function fails. When the GETMAIN storage is not available, xx contains a value of x'FF'. When the OSAM OPEN function fails, xx is the return code value returned by the OSAM OPEN function.

System action

If the error occurred while opening a WADS and one or more WADS was still available, IMS continues processing. If no WADS was available, message DFS3262I is issued and IMS continues processing.

Page Data Sets:

This ADCD system provides you with six volumes dedicated for page data sets, FDPAGA through FDPAGF. The contents of the volumes are listed below.

```
FDPAGA –    SYS1.PLPA.PAGE
            SYS1.COMMON.PAGE
            SYS1.LOCALA.PAGE
FDPAGB –    SYS1.LOCALB.PAGE
FDPAGC –    SYS1.LOCALC.PAGE
FDPAGD –    SYS1.LOCALD.PAGE
FDPAGE –    SYS1.LOCALE.PAGE
FDPAGF –    SYS1.LOCALF.PAGE
```

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

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

Starting IMS and running an IVP transaction:

The instructions for starting and stopping IMS can be found at the below link:

http://dtsc.dfw.ibm.com/MVSDS/'HTTPD2.IMS910.PUBLIC.SHTML(INDEX)'

Above page has pointers to all the levels of IMS from V9 through V12 and on each level click on the "Issues, Hints and Tips" to see the instructions for starting and stopping. The IVP jobs are available on ADCD system, in the data set IMSx10.INSTALIB (where x is 9, 10, 11,12) and one needs to run each series in a specific manner to create the particular IVP environment and data to be able to follow each IVP.

WLM configuration provided on ADCD z/OS:

The WLM configuration of application environments for DB2 Stored Procedures for DBAG are self documented in the WLM application environment display. For DBAG the comment describes the usage of each environment.

```
DBAGENV                         Default
DBAGENVC                        DSNWLM_DSNACICS
DBAGENVD                        DSNWLM_DEBUGGER
DBAGENVG                        DSNWLM_GENERAL
DBAGENVJ                        DSNWLM_JAVA
DBAGENVM                        DSNWLM_MQSERIES
DBAGENVO                        DSNWLM_JAVA_BIGMEM
DBAGENVP                        DSNWLM_PGM_CONTROL
DBAGENVR                        DSNWLM_REXX
DBAGENVU                        DSNWLM_UTILS
DBAGENVW                        DSNWLM_WEBSERVICES
DBAGENVX                        DSNWLM_XML
DBAGENV1                        DSNWLM_NUMTCB1
DBAGRFSH                        Stored Procedure REFRESH
```

ACS routines provided on ADCD:

DB2 V10 requires that its Catalog and Directory be SMS managed. The ACS routines available on ADCD z/OS system were created to handle HLQ DSNCA10, which is the HLQ of the DB2 V10 Catalog and Directory. The logic is to use two qualifiers, first is DSNCA10 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 V10 have a HLQ of DSNA10 and these are not SMS managed. A DB2 STOGROUP called SYSSMS has been created for the Catalog and Directory Tablespaces with a VCAT of DSNCA10 and VOL of (*). The (*) is for SMS managed STOGROUP. The DB2 STOGROUP, SYSDEFLT uses VCAT of DSNA10 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.

Recreating the coupling data sets:

Below listed are the coupling data sets provided on ADCD.

```
SYS1.ADCDPL.CDS01
SYS1.ADCDPL.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: 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 FDDBAR 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 FDDBAR to device# 0AA3 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 a 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 HCD tool (Hardware Configuration Tools).

```
                              z/OS V1.13 HCD
              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)

```
                             z/OS V1.13 HCD
           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.

```
    Goto  Backup  Query  Help
    ----------------------------------------------------------------------
                  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 ********************************
```

10

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

```
         Goto  Backup  Query  Help
     -------------┌───────── 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

```
                            ┌────────────── EDT List ──────────────┐
    -  │    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 ****************  │
       │                                                             │
       └─────────────────────────────────────────────────────────────┘
```
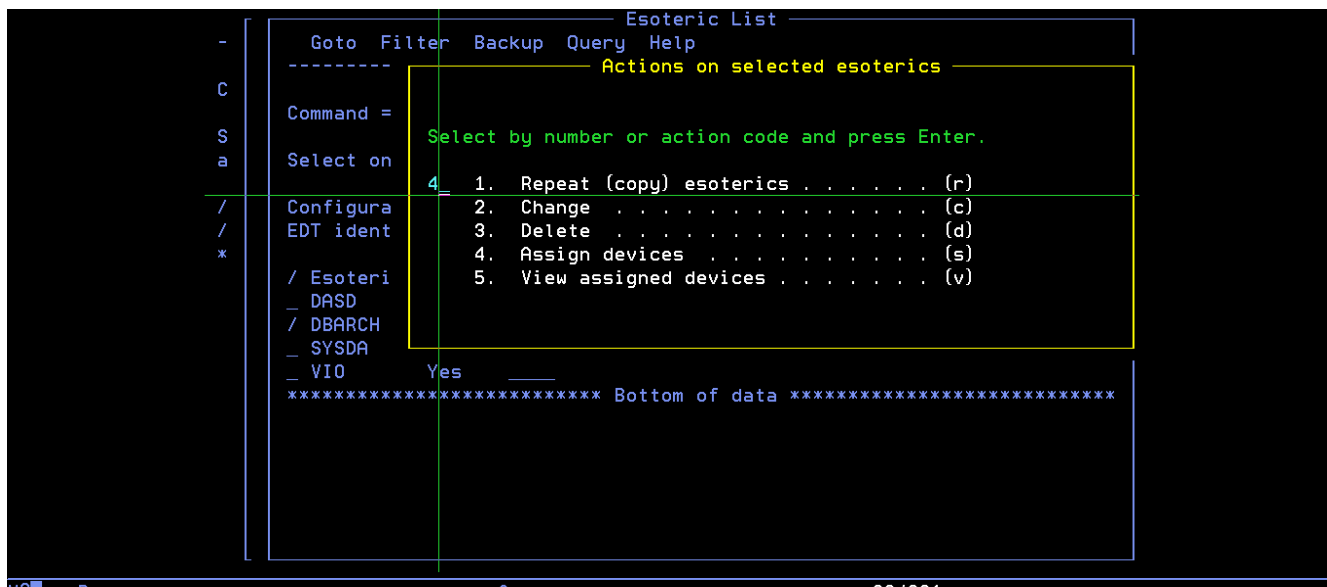
6) Throws another pop-up with actions to be performed on EDTs, select option 4 (Work with esoterics)

```
                                    ─── EDT List ───
         -    │   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)
```
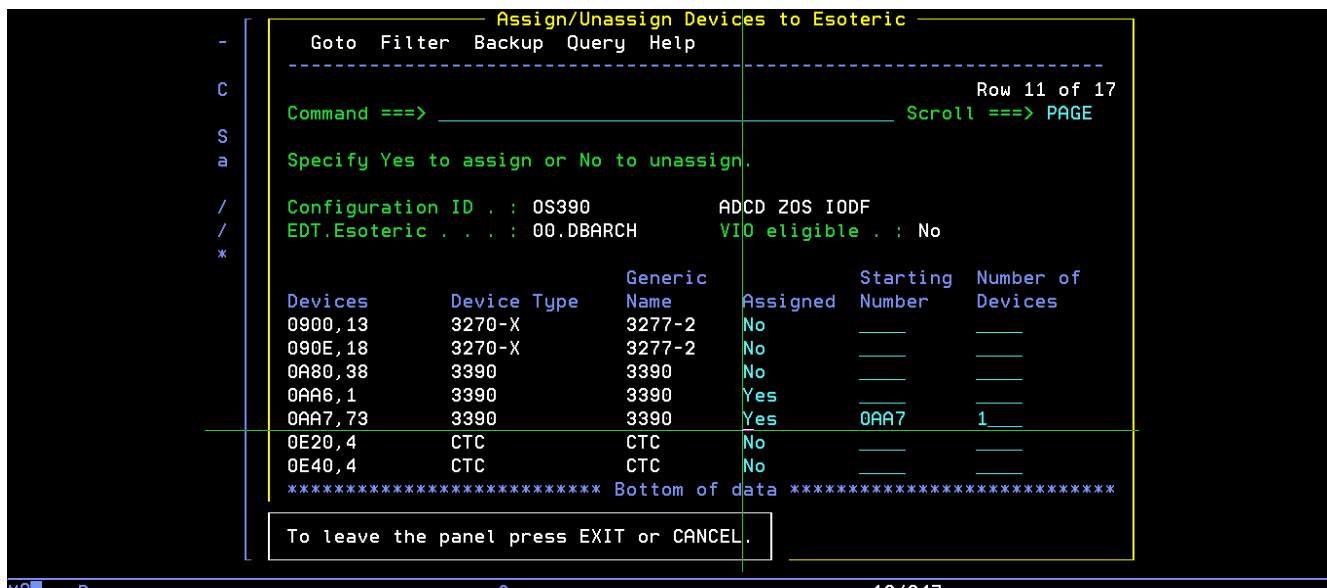
7) This lists the esoterics already available, select the esoteric DBARCH by typing '/' and press enter for further options.

```
                                  ─── Esoteric List ───
      -   │    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)

```
┌──────────────────────────── Esoteric List ──────────────────────────┐
 -     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.

```
┌─────────────────────── Assign/Unassign Devices to Esoteric ──────────────┐
 -       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       ____      ____
         0AA6,1       3390         3390     Yes      ____      ____
         0AA7,73      3390         3390     Yes      0AA7      1___
         0E20,4       CTC          CTC      No       ____      ____
         0E40,4       CTC          CTC      No       ____      ____
         **************************** Bottom of data ****************************
         ┌──────────────────────────────────────────────┐
         │ To leave the panel press EXIT or CANCEL.     │
         └──────────────────────────────────────────────┘
```

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.

```
                                  ───── Esoteric List ─────
         -       ┌──  Goto  Filter  Backup  Query  Help
         -       │  ──────────────  Add Esoteric ──────────             ─────────
         C       │                                                           │
         C     ┌─────────────── Create Work I/O Definition File ───────────────┐
         S     │                                                               │
         a     S │                                                             │
               │   The current IODF is a production IODF and therefore cannot be │
         /     C │   updated. To create a new work IODF based on the current    │
         /     E │   production IODF, specify the following values.             │
         *       │                                                             │
               / │   IODF name  . . . . . .  'SYS1.IODF03.WORK'                 │
               _ │                                                             │
               _ │   Volume serial number .  SDSYS1  +                         │
               └─┤                                                             │
               _ │                                                             │
         ***   │   Space allocation . . .  1024     (Number of 4K blocks)      │
               │   Activity logging . . .  Yes      (Yes or No)                │
               │   Multi-user access  . .  No       (Yes or No)                │
               │                                                               │
               └───────────────────────────────────────────────────────────────┘
```

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.

```
                      ───── Assign/Unassign Devices to Esoteric ─────
         -       ┌──  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 ***************************
```

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.

```
                              z/OS V1.13 HCD
          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

```
                   ┌─── Activate or Process Configuration Data ───┐
          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.

```
┌────────────────────────────── Message List ──────────────────────────────┐
    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.

```
┌──────────── Activate or Process Configuration Data ────────┐
  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

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

```
                      ── Activate or Process Configuration Data ──
          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

```
                    ── Activate or Process Configuration Data ──
          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.

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help

 EDIT       SYS1.IPLPARM(LOAD01) - 01.00              Columns 00001 00072
 Command ===> _____      Scroll ===> CSR
 ****** *************************** Top of Data *******************************
 000001 IODF     03 SYS1
 000002 SYSCAT   ZDSYS1113CCATALOG.Z113.MASTER
 000003 SYSPARM  CS
 000004 IEASYM   00
 000005 NUCLST   00
 000006 PARMLIB  USER.PARMLIB                              ZDSYS1
 000007 PARMLIB  ADCD.Z113.PARMLIB                         ZDRES1
 000008 PARMLIB  SYS1.PARMLIB                              ZDRES1
 000009 NUCLEUS  1
 000010 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.Z113F.PROCLIB.

Using the esoteric devices

Esoteric devices called WORK, TEMP and SORT have been defined and mapped to devices in the range 0600 – 060F. 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)

FDSYS1,0,0,3390    ,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, so that users can start it if required. This utility can be started with the below start command.

```
/START HZSPROC
```

It can also be started automatically during an IPL, by adding the start command to appropriate COMMNDxx or VTAMxx member in ADCD.Z113F.PARMLIB. Please be aware that this component is very resource intensive and fills up the system log with diagnostic messages, which may affect the performance of your zPDT system. For more details on this component, refer the below link:

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 z/OS Management Facility (z/OSMF)

A new loadparm (IZ) has been configured with this edition to start z/OSMF product. The commands required to start z/OSMF are listed below for reference. However, these commands have been included in the startup script member VTAMIZ, so that it comes up automatically. The first command below starts the CIM (Common Information Model) server and the second one starts the WAS OEM and z/OSMF. The CIM server needs to be up before starting z/OSMF. The WAS OEM provides a native application server runtime environment for z/OSMF.

```
S CFZCIM

S BBN7ACR,JOBNAME=BBNS001,ENV=BBNBASE.BBNNODE.BBNS001
```

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

```
BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 471

PROCESS BBNS001.
```

The z/OSMF console can be accessed by using the below url.

https://s0w1.dal-ebis.ihost.com:32208/zosmf
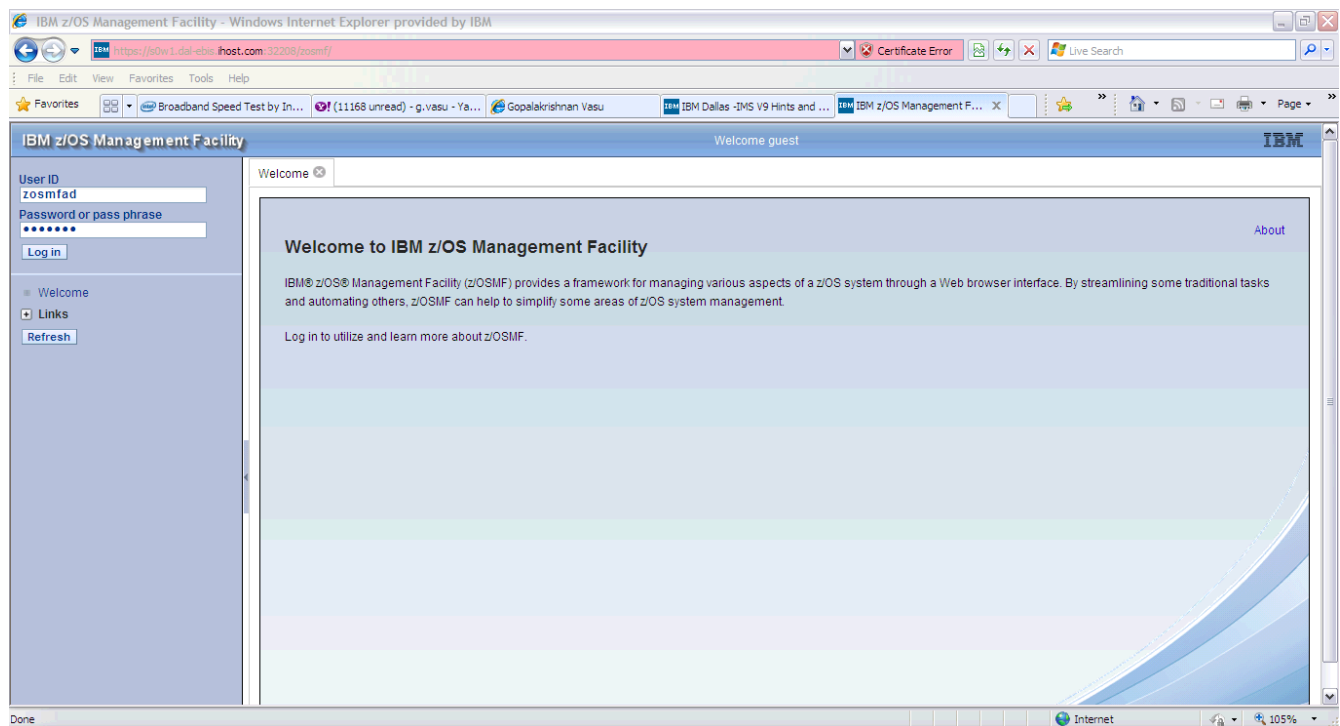
The initial login screen is as shown in below screenshot. Login with userid 'zosmfad' and password 'zosmfad'.

The welcome screen of z/OSMF console is shown in below screenshot.
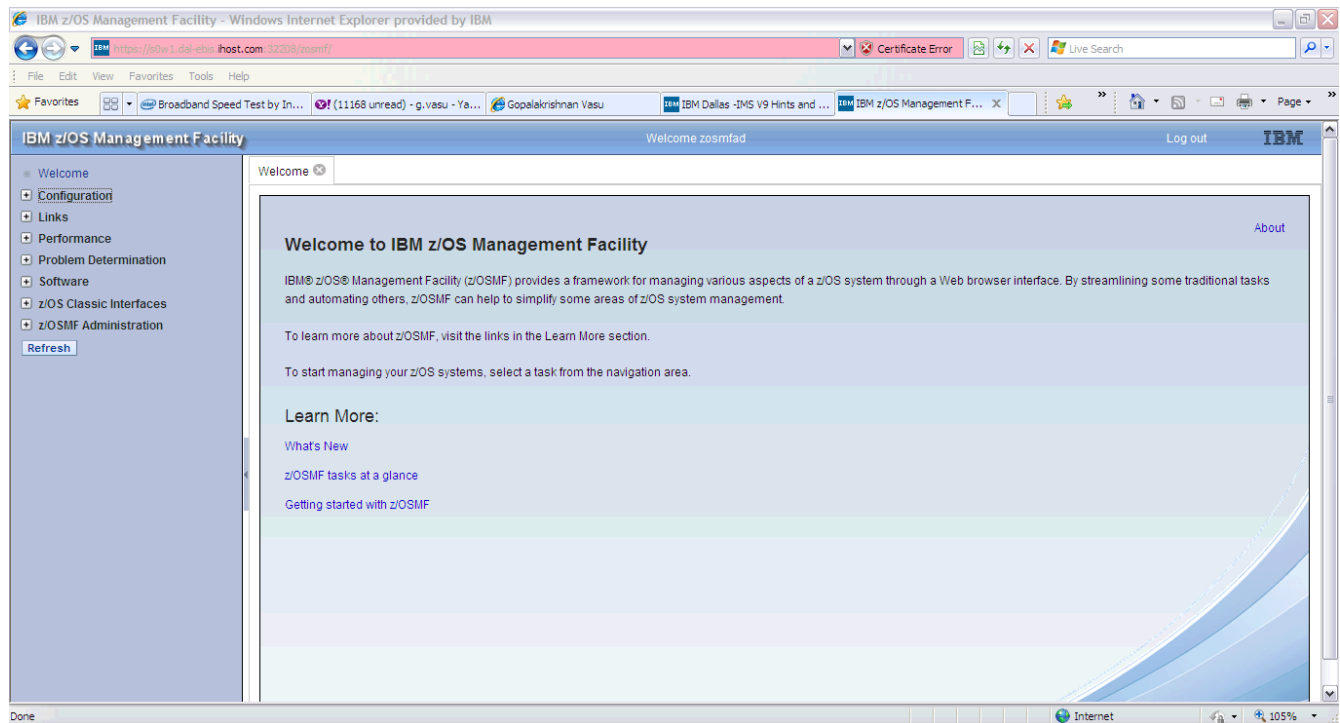
The commands for stopping z/OSMF are listed below. Note that the order of stopping is reversed and also they are included in the shut down script SHUTIZ.
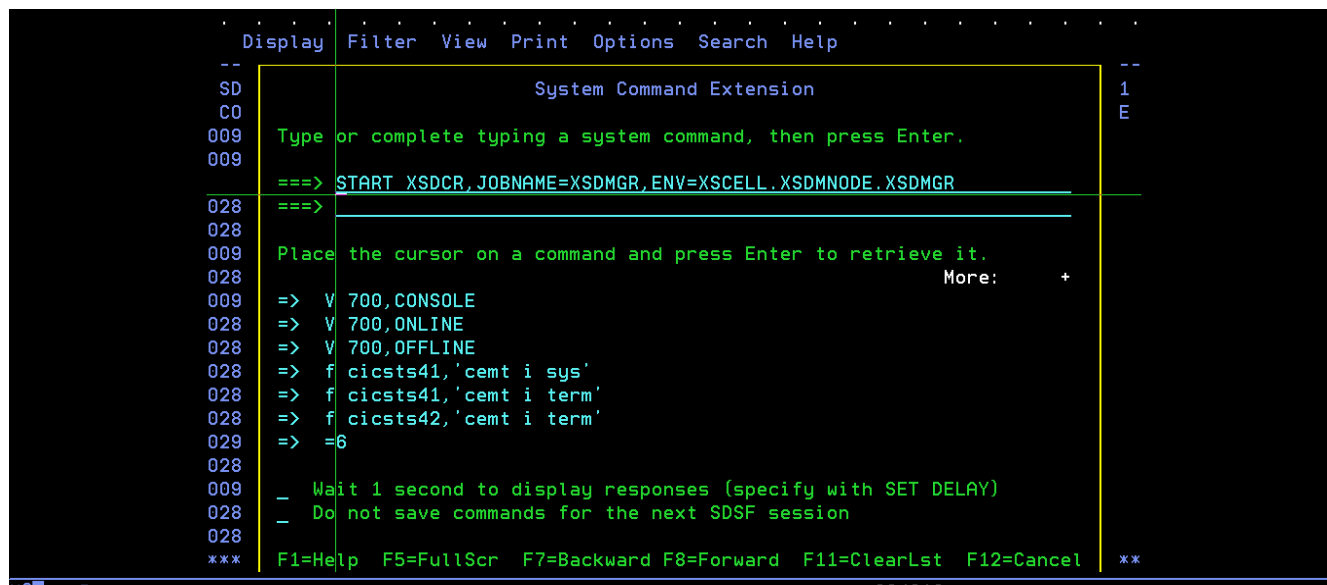
```
P BBN7ACRS
P CFZCIM
```

Steps for starting Websphere Application Server (WAS V7)

It is recommended to have more than 3 GB real memory on your system and code at least 2000m (2 GB) in the devmap. IPL the system with loadparm WA and follow the below steps to bring up WAS V7:

1) The mounts for WAS 7 are present in BPXPRMDD. Issue SET OMVS=DD from SDSF to dynamically mount the WAS 7 zFS files.
2) 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 XSDCR,JOBNAME=XSDMGR,ENV=XSCELL.XSDMNODE.XSDMGR
```

```
      Display  Filter  View  Print  Options  Search  Help
--                                                                          --
 SD                        System Command Extension                        1
 CO                                                                         E
009    Type or complete typing a system command, then press Enter.
009
       ===> START XSDCR,JOBNAME=XSDMGR,ENV=XSCELL.XSDMNODE.XSDMGR
028    ===>
028
009    Place the cursor on a command and press Enter to retrieve it.
028                                                         More:      +
009    =>  V 700,CONSOLE
028    =>  V 700,ONLINE
028    =>  V 700,OFFLINE
028    =>  f cicsts41,'cemt i sys'
028    =>  f cicsts41,'cemt i term'
028    =>  f cicsts42,'cemt i term'
029    =>  =6
028
009    _  Wait 1 second to display responses (specify with SET DELAY)
028    _  Do not save commands for the next SDSF session
028
***    F1=Help  F5=FullScr  F7=Backward F8=Forward  F11=ClearLst  F12=Cancel  **
```

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

```
BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 400
PROCESS XSDMGR.
```

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

```
START XSACR1,JOBNAME=XSAGNT1,ENV=XSCELL.XSNODE1.XSAGNT1
```

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

```
BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 253
PROCESS XSAGNT1.
```

6) Now try to connect to the Admin console from your browser, using the below link.

http://s0w1.dal-ebis.ihost.com:9505/ibm/console

7) Should get a logon screen like shown below, login with userid 'xsadmin'

22
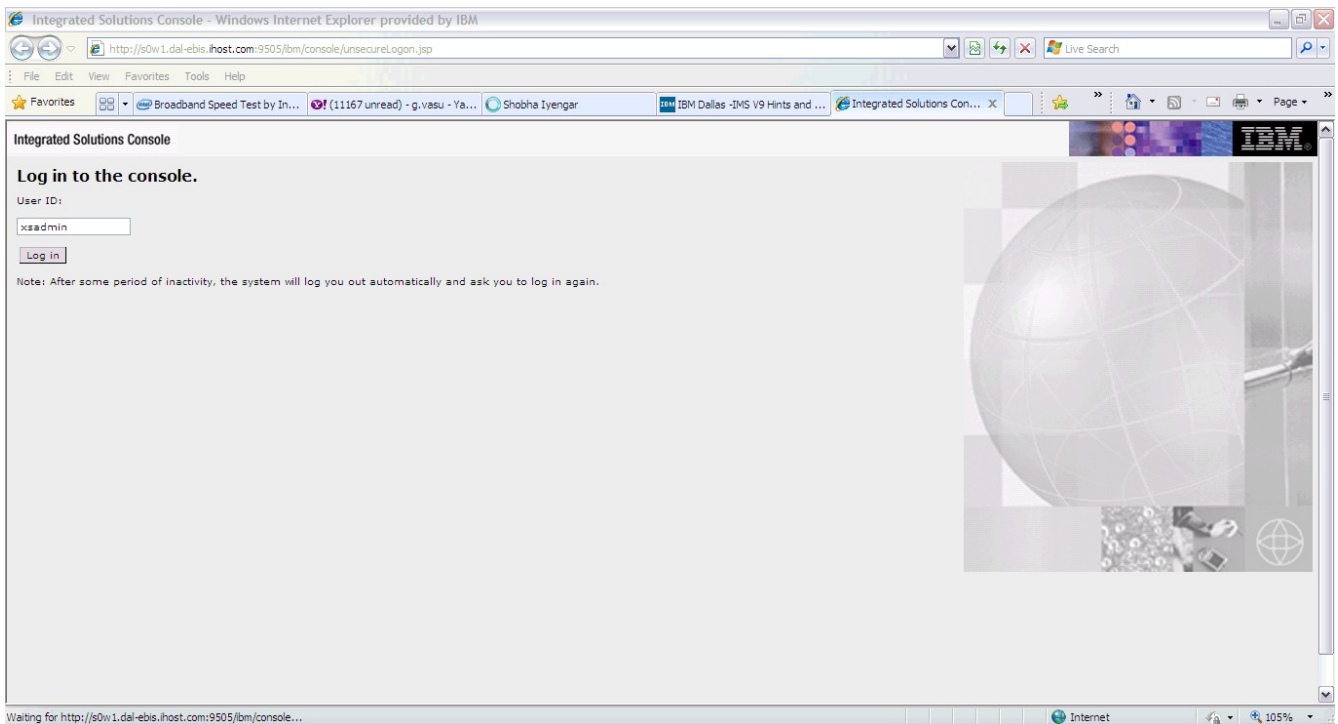
8) The Application Server can be started from the Admin console as shown below. Go to Servers → Server Types → Websphere application servers. The server XSSR011 should be listed on the right side panel. Select it by checking the box against it and click on the 'Start' button to start the application server.
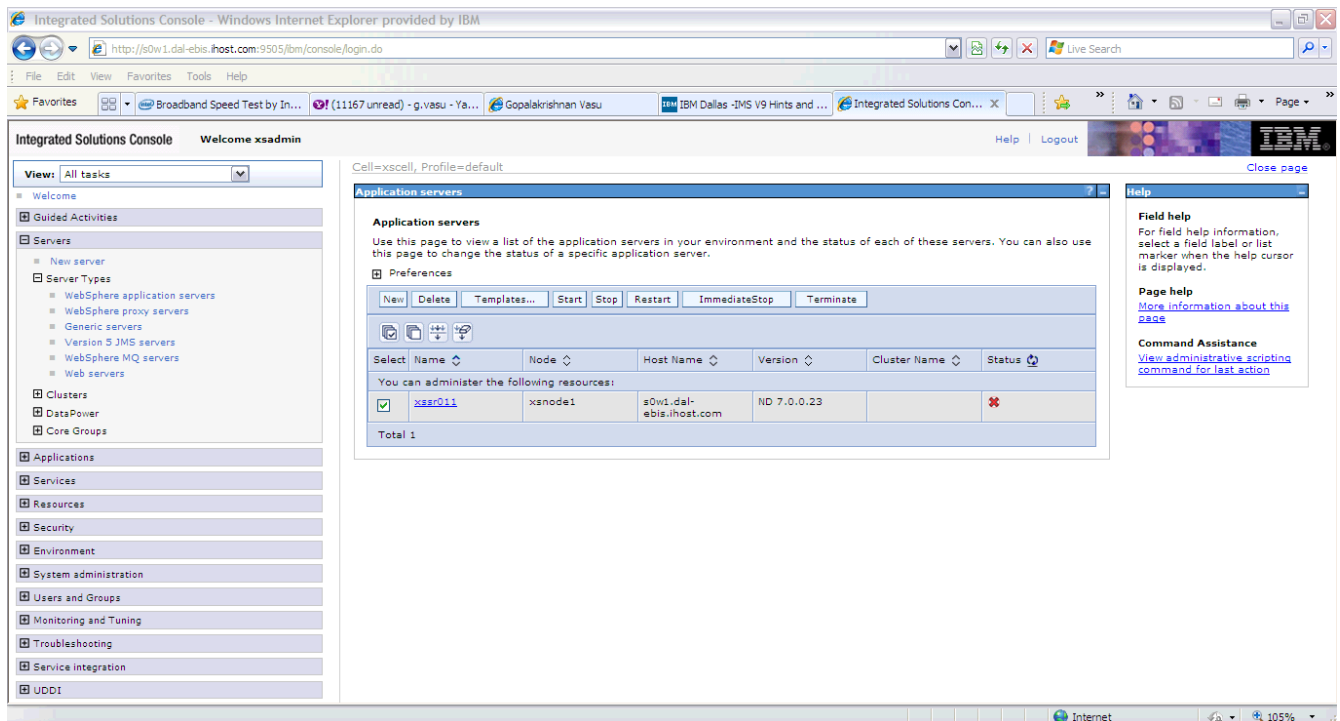
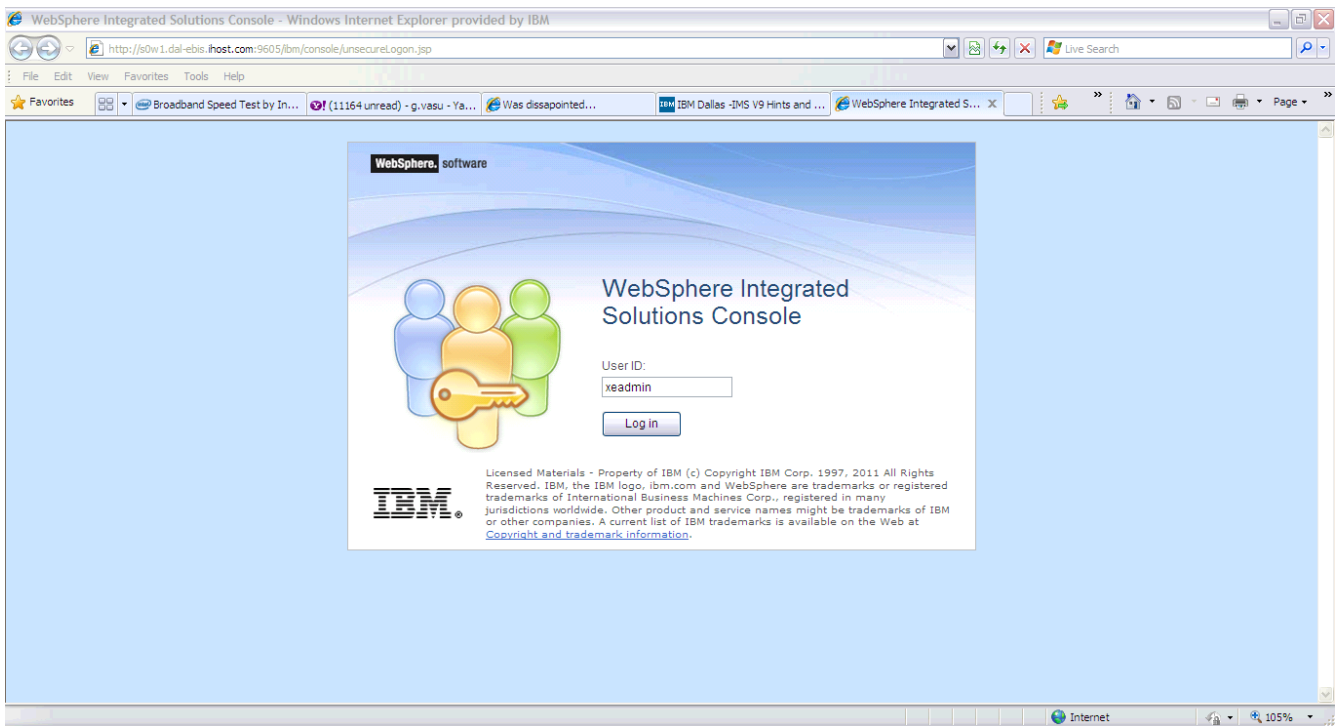9) This may take several minutes, look for the below message in the System log

```
BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 175
PROCESS XSSR011.
```
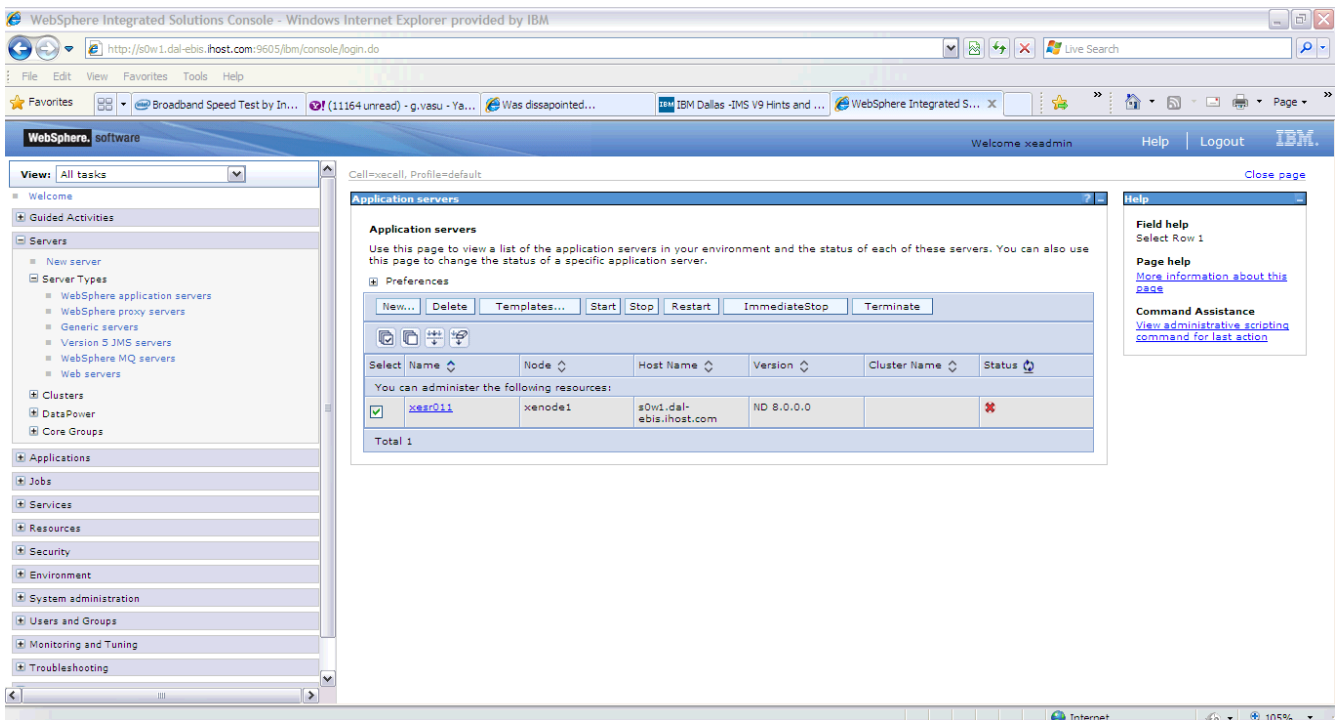
The status of the server turns into green arrow, indicating that it is started now.
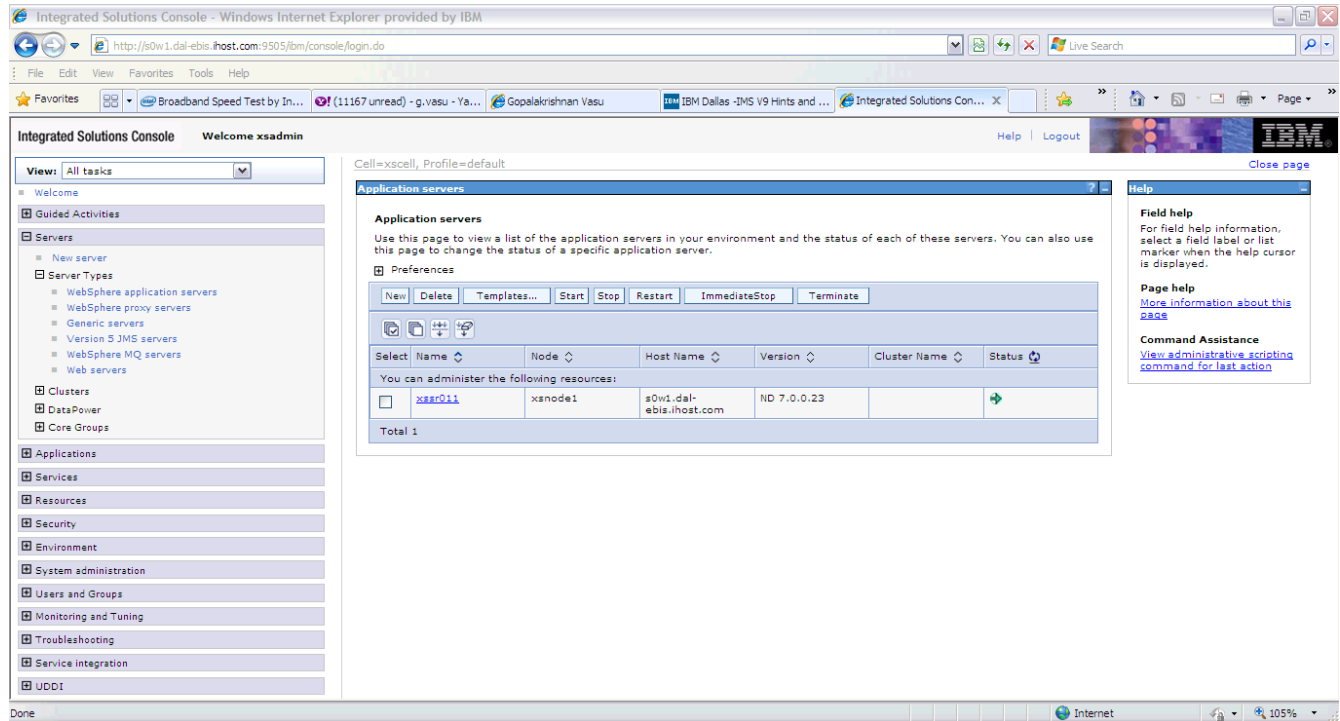
10) A sample application for IVP is available and can be accessed from below link:

http://s0w1.dal-ebis.ihost.com:9567/snoop

11) Above link should open the below page, indicating a successful access of the sample application 'Snoop'
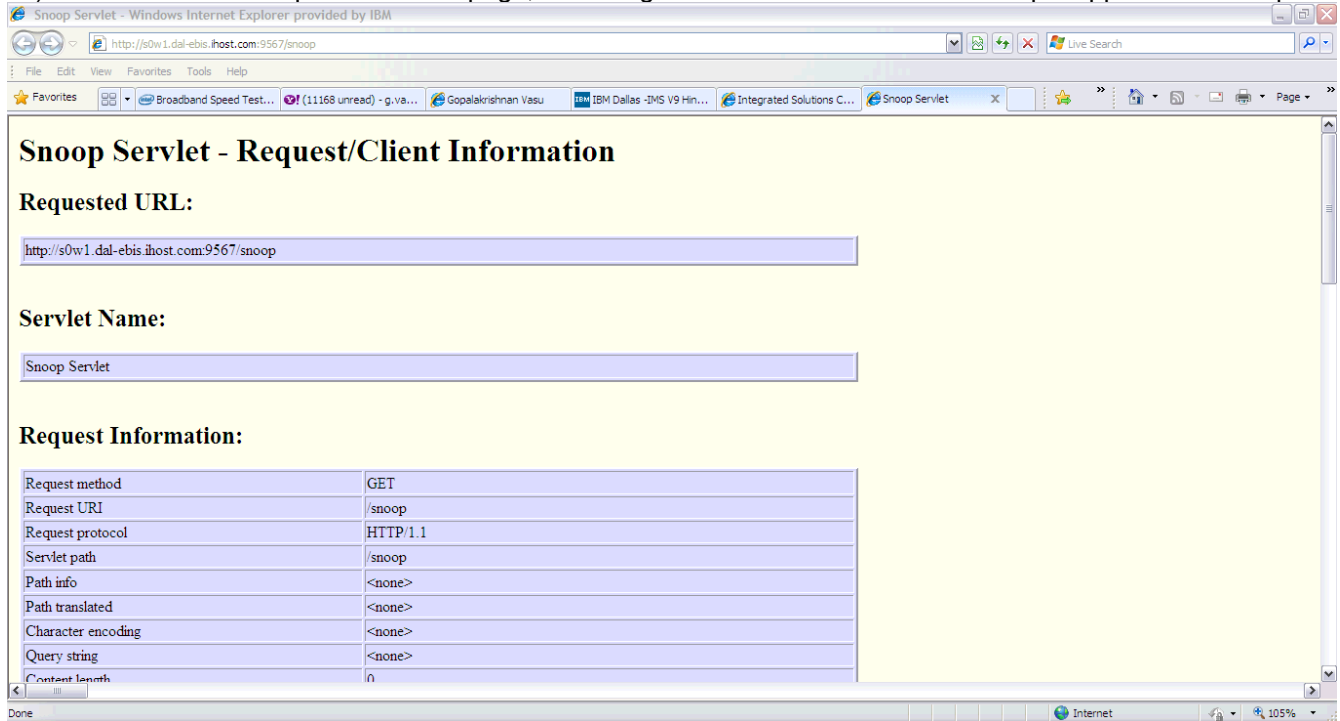
12) The application server can be stopped from the browser itself, by selecting the server and clicking on the 'Stop' button. Click OK on the confirmation message to stop the server. Alternatively, a stop command can also be issued from the SDSF:

```
/P XSSR011
```

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

```
BBOO0002I WEBSPHERE FOR Z/OS CONTROL PROCESS XSSR011 ENDED NORMALLY.
```

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

```
/P XSDEMN
```

```
      Display  Filter  View  Print  Options  Search  Help
    --------------------------------------------------------------------------
    SDSF DA ADCD      ADCD113S PAG 26  CPU/L     7/***     LINE 1-4 (4)
    COMMAND INPUT ===> /P XSDEMN                          SCROLL ===> PAGE
    PREFIX=XS*  DEST=(ALL)  OWNER=*  SYSNAME=
    NP   JOBNAME  StepName ProcStep JobID    Owner    C Pos DP Real Paging    SIO
         XSDEMN   XSDEMN   BBODAEMN STC00037 XSACRU    NS  FE  300  0.00   0.00
         XSDMGR   XSDMGR   BBOPDCR  STC00033 XSACRU    NS  FE  67T  0.00   0.00
         XSDMGRS  XSDMGRS  BBOPDSR  STC00038 XSASRU    IN  C8 102T  0.00   0.00
         XSAGNT1  XSAGNT1  BBOPACR  STC00040 XSACRU    NS  FE  41T  0.00   0.00
```

15) This will take several minutes, look for the below message for normal completion.
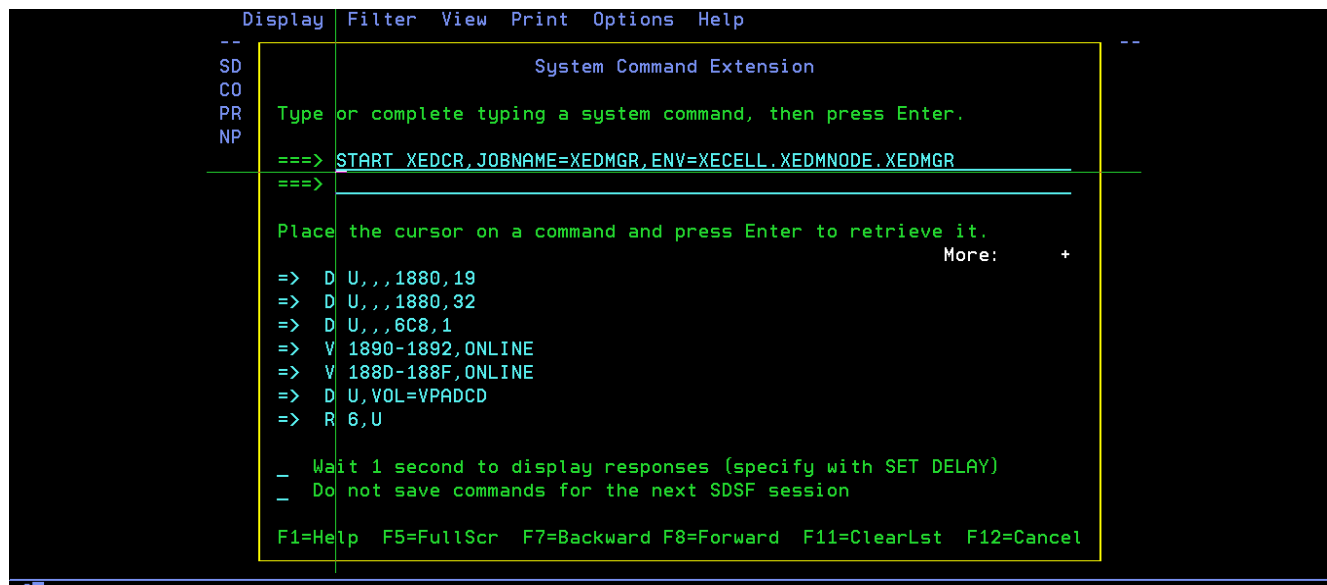
BBOO0008I WEBSPHERE FOR Z/OS DAEMON S0W1 ENDED NORMALLY.

Steps for starting Websphere Application Server (WAS V8)

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 V8:

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 XEDCR,JOBNAME=XEDMGR,ENV=XECELL.XEDMNODE.XEDMGR
```


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

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

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

```
START XEACR1,JOBNAME=XEAGNT1,ENV=XECELL.XENODE1.XEAGNT1
```

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

```
BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 346
PROCESS XEAGNT1.
```

5) Now try to connect to the Admin console from your browser, using the below link.

http://s0w1.dal-ebis.ihost.com:9605/ibm/console

6) Should get a logon screen like shown below, login with userid 'xeadmin'

7) The Application Server can be started from the Admin console as shown below. Go to Servers → Server Types → Websphere application servers. The server XESR011 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 XESR011.
```

The status of the server turns into green arrow, indicating that it is started now.
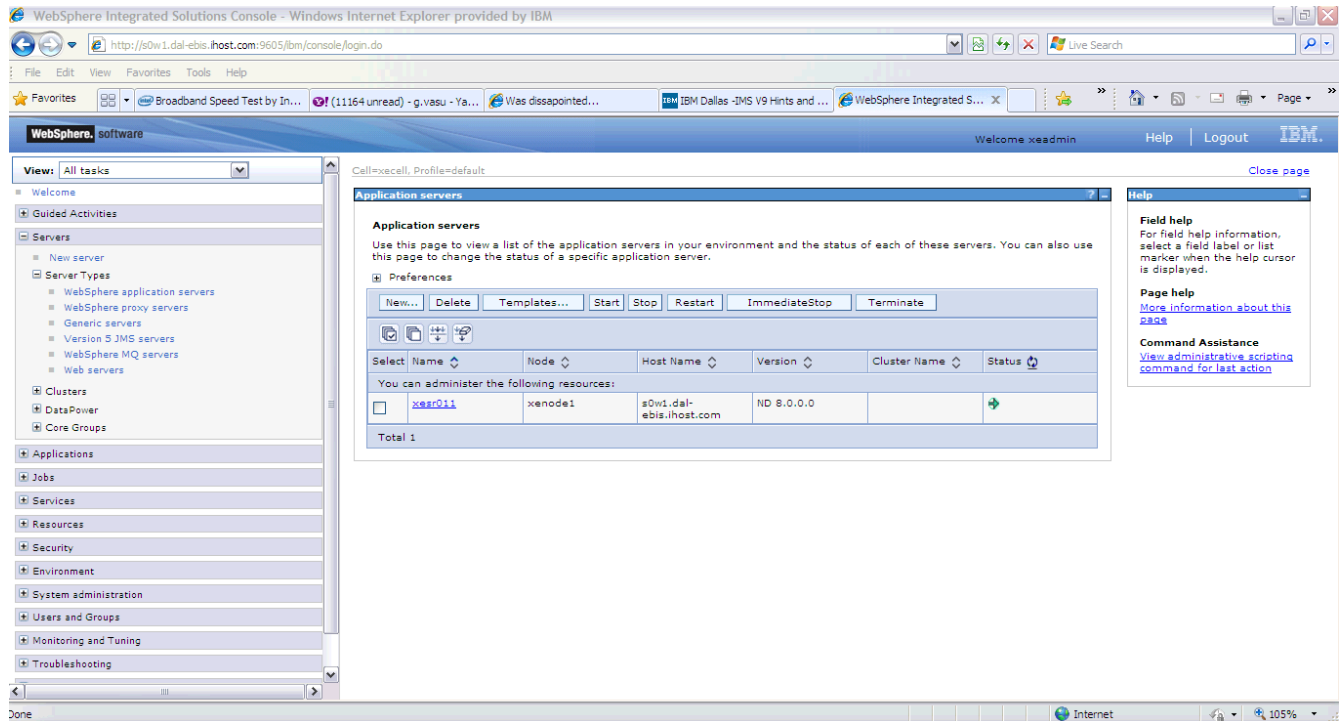
9)   A sample application for IVP is available and can be accessed from below link:

http://s0w1.dal-ebis.ihost.com:9667/snoop

10) Above link should open the below page, indicating a successful access of the sample application 'Snoop'
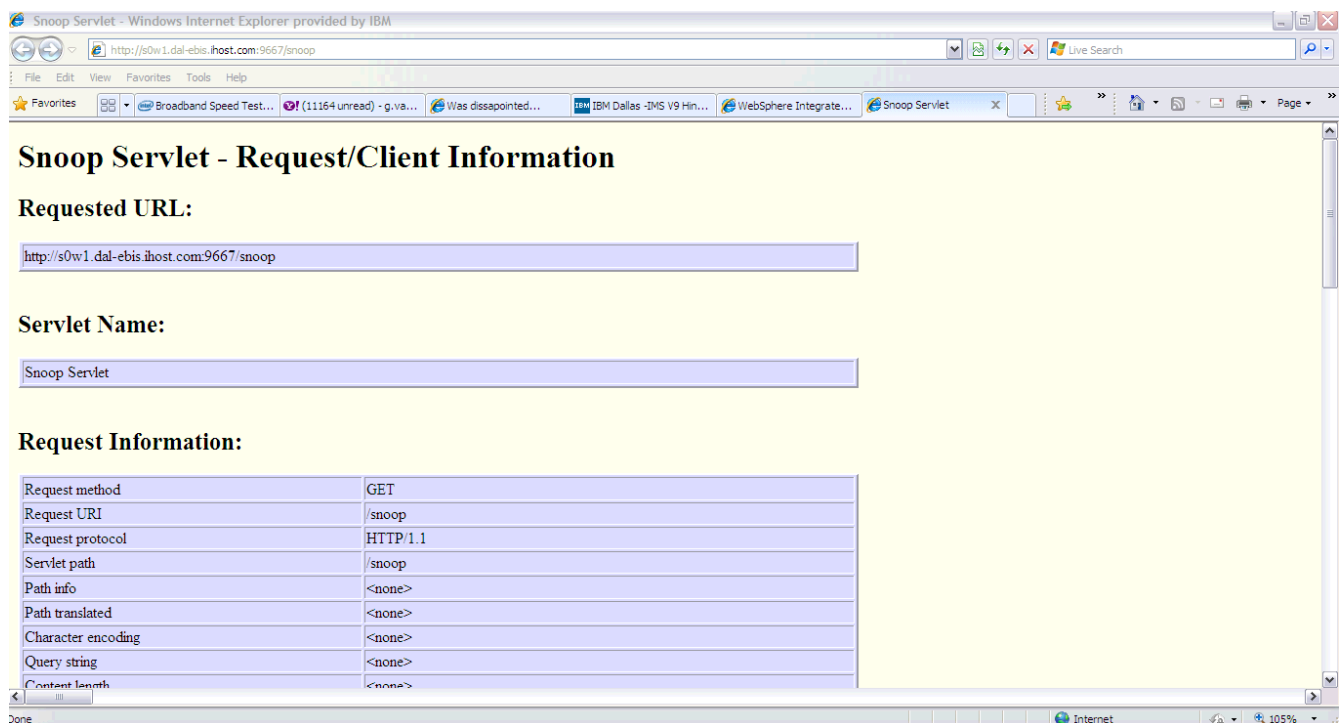
11) The application server can be stopped from the browser itself, by selecting the server and clicking on the 'Stop' button. Click OK on the confirmation message to stop the server. Alternatively, a stop command can also be issued from the SDSF:

```
/P XESR011
```

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

```
BBOO0002I WEBSPHERE FOR Z/OS CONTROL PROCESS XESR011 ENDED NORMALLY.
```

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

```
/P XEDEMN
```

```
  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
    Display  Filter  View  Print  Options  Search  Help
 --------------------------------------------------------------------
 SDSF DA ADCD     ADCD113S PAG  0  CPU/L    11/***     LINE 1-4 (4)
 COMMAND INPUT ===> /P XEDEMN                          SCROLL ===> PAGE
 PREFIX=XE*  DEST=(ALL)  OWNER=*  SYSNAME=
 NP    JOBNAME   StepName ProcStep JobID    Owner    C Pos DP Real Paging    SIO
       XEDEMN    XEDEMN   BBODAEMN STC00036 XEACRU     NS  FE  297  0.00   0.00
       XEDMGR    XEDMGR   BBOPDCR  STC00033 XEACRU     NS  FE  36T  0.00   0.00
       XEAGNT1   XEAGNT1  BBOPACR  STC00038 XEACRU     NS  FE  34T  0.00   0.00
       XEDMGRS   XEDMGRS  BBOPDSR  STC00037 XEASRU     IN  F6 125T  0.00   0.00
```

14) This will take several minutes, look for the below message for normal completion.
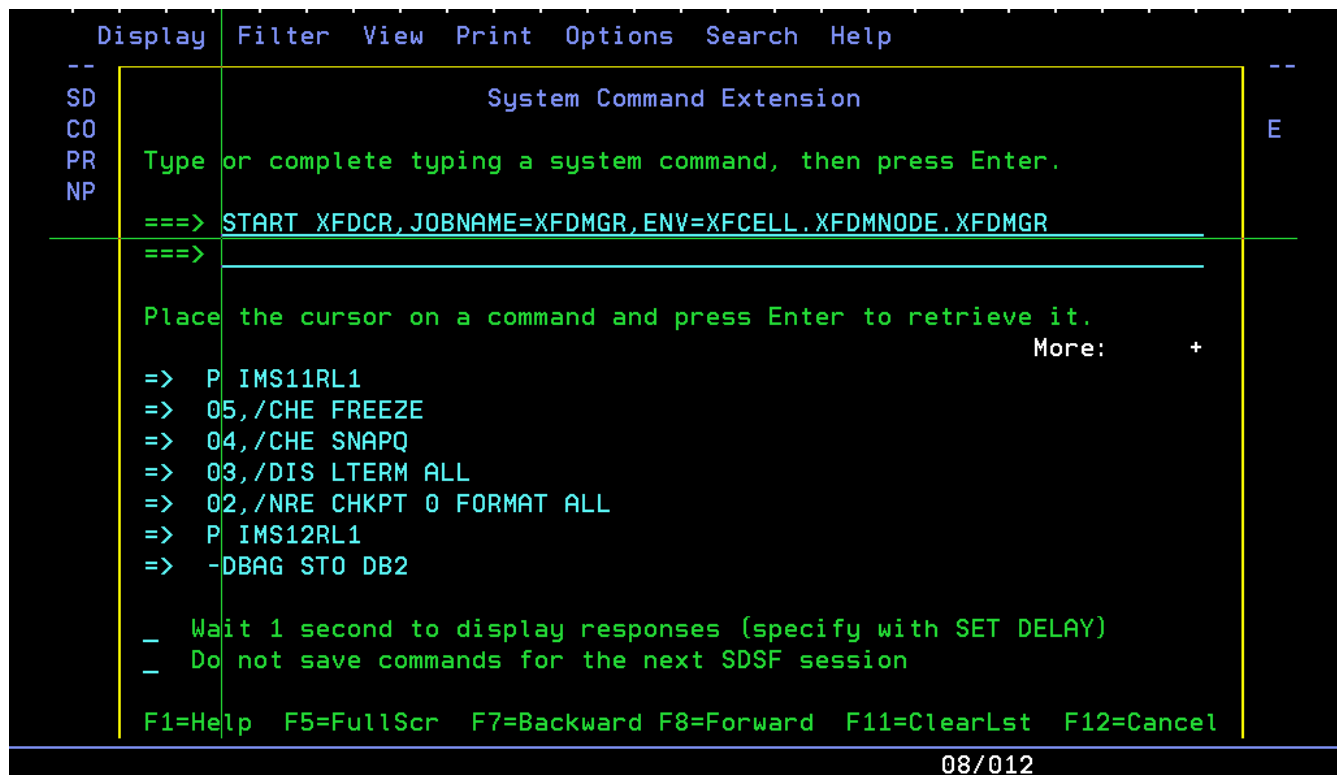
BBOO0008I WEBSPHERE FOR Z/OS DAEMON S0W1 ENDED NORMALLY.

Steps for starting Websphere Application Server (WAS V8.5)

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 V8.5:

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 XFDCR,JOBNAME=XFDMGR,ENV=XFCELL.XFDMNODE.XFDMGR
```

```
    Display  Filter  View  Print  Options  Search  Help
 --                                                                    --
 SD                        System Command Extension
 CO                                                                      E
 PR   Type or complete typing a system command, then press Enter.
 NP
      ===> START XFDCR,JOBNAME=XFDMGR,ENV=XFCELL.XFDMNODE.XFDMGR
      ===>

      Place the cursor on a command and press Enter to retrieve it.
                                                       More:      +
      =>  P IMS11RL1
      =>  05,/CHE FREEZE
      =>  04,/CHE SNAPQ
      =>  03,/DIS LTERM ALL
      =>  02,/NRE CHKPT 0 FORMAT ALL
      =>  P IMS12RL1
      =>  -DBAG STO DB2


      _  Wait 1 second to display responses (specify with SET DELAY)
      _  Do not save commands for the next SDSF session

      F1=Help  F5=FullScr  F7=Backward F8=Forward  F11=ClearLst  F12=Cancel
                                                         08/012
```

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

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

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

```
START XFACR1,JOBNAME=XFAGNT1,ENV=XFCELL.XFNODE1.XFAGNT1
```

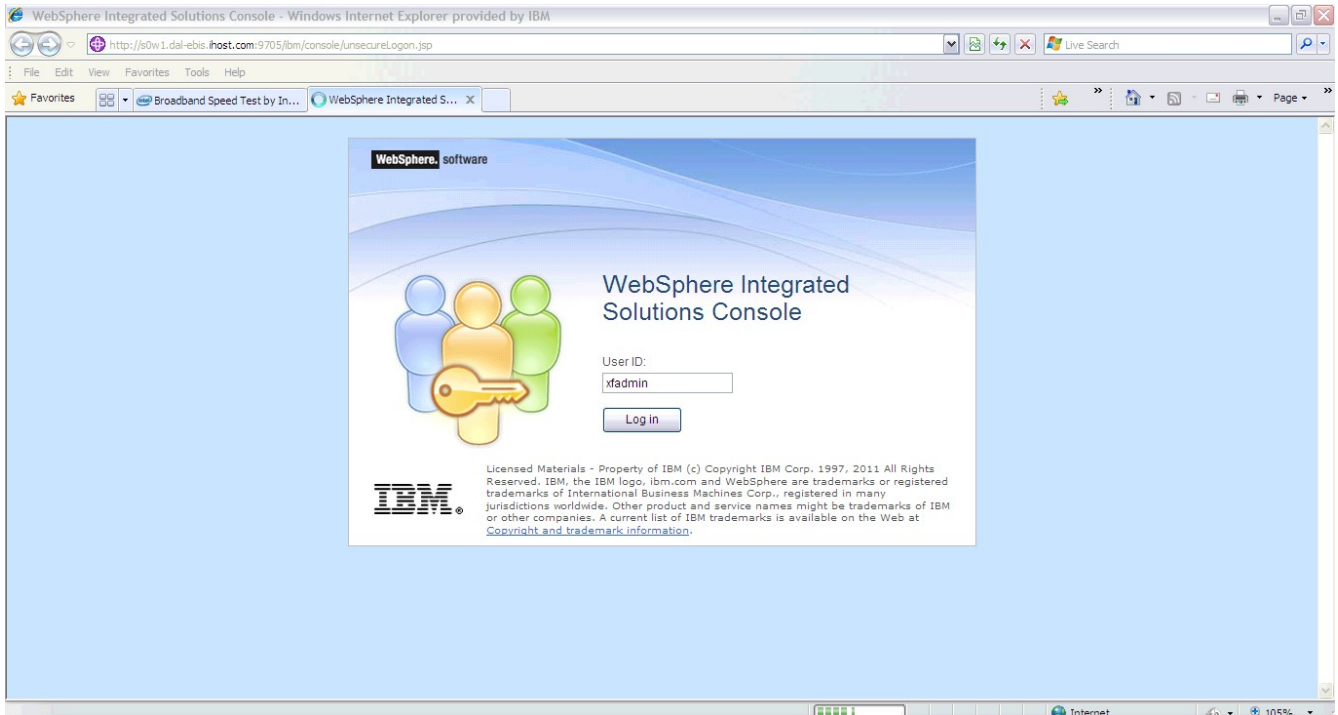4) This may take several minutes, look for the below message in the System log

```
BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 346
PROCESS XFAGNT1.
```

5) Now try to connect to the Admin console from your browser, using the below link.

http://s0w1.dal-ebis.ihost.com:9705/ibm/console

6) Should get a logon screen like shown below, login with userid 'xfadmin'

7) The Application Server can be started from the Admin console as shown below. Go to Servers → Server Types → Websphere application servers. The server XFSR011 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.
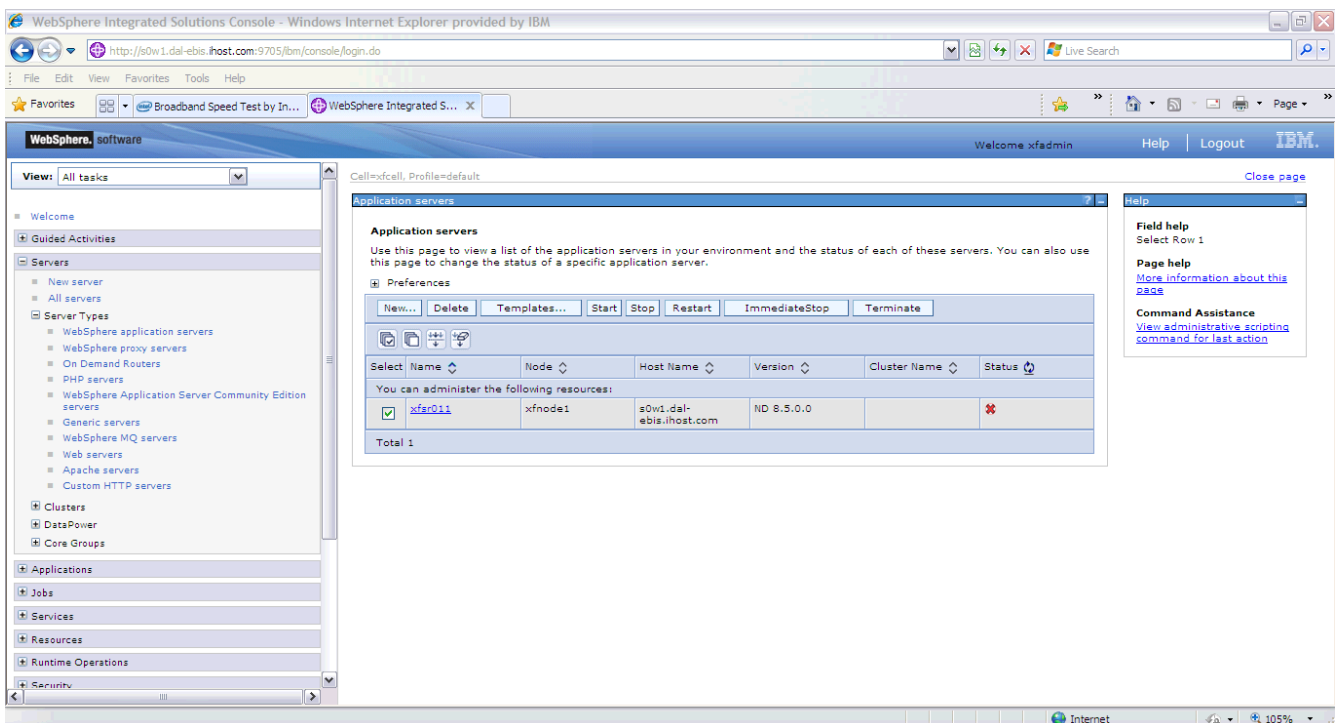
8) This may take several minutes, look for the below message in the System log

```
BBOO0019I INITIALIZATION COMPLETE FOR WEBSPHERE FOR Z/OS CONTROL 541
PROCESS XFSR011.
```
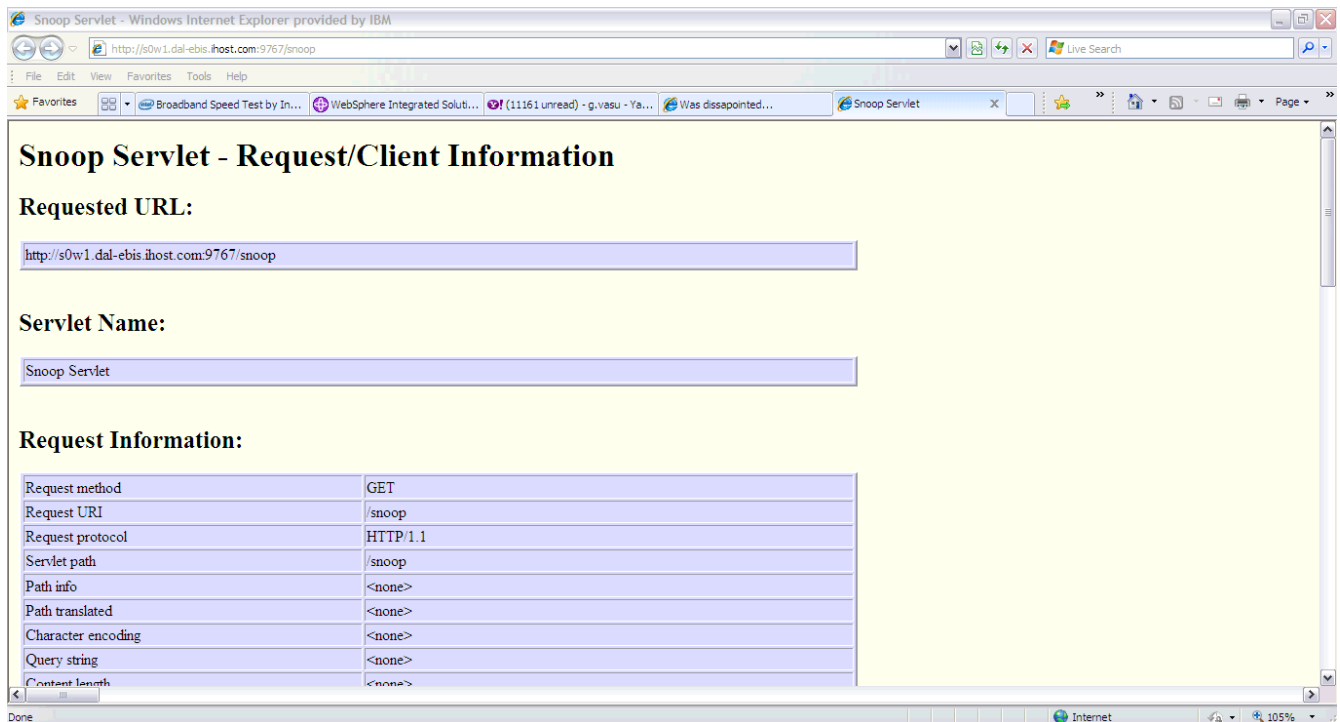
The status of the server turns into green arrow, indicating that it is started now.
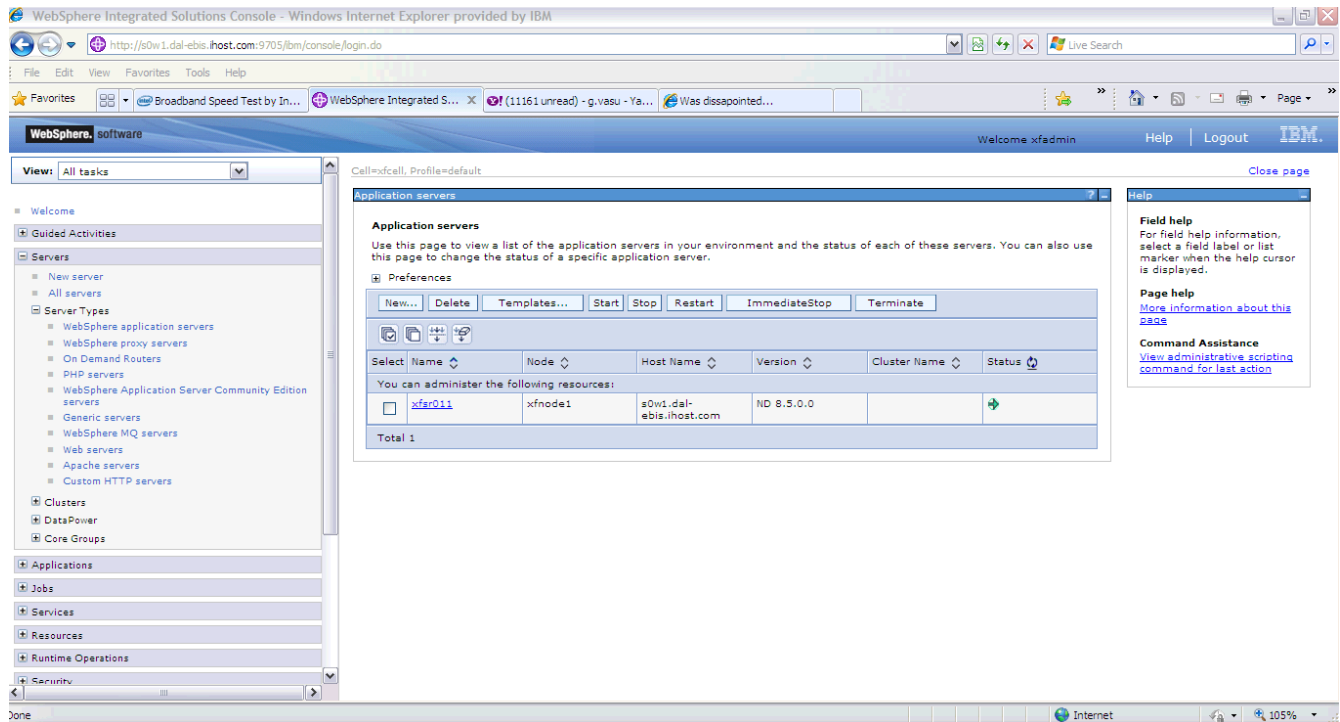
9) A sample application for IVP is available and can be accessed from below link:

http://s0w1.dal-ebis.ihost.com:9767/snoop

10) Above link should open the below page, indicating a successful access of the sample application 'Snoop'

11) 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 XFSR011
```

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

```
BBOO0002I WEBSPHERE FOR Z/OS CONTROL PROCESS XFSR011 ENDED NORMALLY.
```

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

```
/P XFDEMN
```

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

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

New 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.
00	CLPA and Warm 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 5.1 and 4.2 libraries. Starts up CICS 5.1 and RDz.
DB	CLPA and Warm start of JES2. Loads DB2 V10 and V9 libraries. Starts up DB2 V10 and RDz.
IM	CLPA and Warm start of JES2. Loads IMS 12 and 11 libraries. Starts up IMS 12 and RDz.
IZ	CLPA and Warm start of JES2. Starts up z/OSMF and RDz.
WA	CLPA and Warm start of JES2. Loads WAS 8.5 and WAS 8 libraries. Starts up RDz. WAS needs to be manually started.
AL	CLPA and Warm start of JES2. Loads all middleware libraries. Starts up CICS 5.1, DB2 V10, IMS 12 and RDz.