Program Directory for

IBM IMS Workload Router for z/OS

V02.07.00

Program Number 5697-B87

FMID H23J270

for Use with
z/OS

Document Date: October 2011

GI10-9897-07

Note

Before using this information and the product it supports, be sure to read the general information under 7.0, “Notices” on page 22.

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Figures

1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of IBM IMS Workload Router for z/OS. This publication refers to IBM IMS Workload Router for z/OS as IMS Workload Router.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic and optional program materials and documentation for IMS Workload Router.
- 3.0, “Program Support” on page 6 describes the IBM support available for IMS Workload Router.
- 4.0, “Program and Service Level Information” on page 8 lists the APARs (program level) and PTFs (service level) that have been incorporated into IMS Workload Router.
- 5.0, “Installation Requirements and Considerations” on page 9 identifies the resources and considerations that are required for installing and using IMS Workload Router.
- 6.0, “Installation Instructions” on page 15 provides detailed installation instructions for IMS Workload Router. It also describes the procedures for activating the functions of IMS Workload Router, or refers to appropriate publications.

Before installing IMS Workload Router, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that are supplied with this program in softcopy format and this Program Directory; then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 6 tells you how to find any updates to the information and procedures in this Program Directory.

IMS Workload Router is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format that is provided with your order. All service and HOLDDATA for IMS Workload Router are included on the CBPDO tape.

Do not use this program directory if you install IMS Workload Router with a SystemPac or ServerPac. When you use these offerings, use the jobs and documentation supplied with the offering. This program directory can point you to specific sections of it as required.

1.1 IMS Workload Router Description

IBM IMS Workload Router for z/OS, V2.7 (5697-B87) supports IMS V12, in addition to IMS V10 and IMS V11, helping you improve the management of this new system environment. IMS V9 is no longer supported.

IMS is a high-performance application and data server for IBM System z. IMS Workload Router works with the IMS Transaction Manager to route or balance the IMS transaction workload across multiple IMS

systems in a sysplex or nonsysplex environment and manages the routing and execution of IMS transaction workloads. It provides flexibility in the way that the workload is routed and allows routing to be changed dynamically. Because IMS Workload Router is integrated with the IMS Transaction Manager software, it provides workload balancing that is transparent to end users and IMS applications.

IMS Workload Router is adaptable to a wide variety of IMS configurations because it supports a configuration that includes one or more router systems coupled with one or more server systems. It can help save you time and effort when designing and coding the many Multiple Systems Coupling user exits that are necessary to achieve the workload balancing that IMS Workload Router provides.

1.2 IMS Workload Router FMID

IMS Workload Router consists of the following FMID:

H23J270

2.0 Program Materials

An IBM program is identified by a program number and a feature number. The program number for IMS Workload Router is 5697-B87 and its feature number is 6930.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product. Optional Machine-Readable Materials are orderable under separate feature numbers, and are not required for the product to function.

The program announcement material describes the features supported by IMS Workload Router. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is magnetic tape or downloadable files. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, “Installation Instructions” on page 15 for more information about how to install the program.

You can find information about the physical tape for the basic machine-readable materials for IMS Workload Router in the *CBPDO Memo To Users Extension*.

Figure 1. Program File Content

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.H23J270.F1	PDS	FB	80	8800
IBM.H23J270.F2	PDS	FB	80	8800
IBM.H23J270.F3	PDS	U	0	6144
IBM.H23J270.F4	PDS	FB	80	8800
IBM.H23J270.F5	PDS	FB	80	8800

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for IMS Workload Router.

2.3 Program Publications

The following sections identify the basic and optional publications for IMS Workload Router.

2.3.1 Basic Program Publications

Figure 2 identifies the basic unlicensed program publications for IMS Workload Router. One copy of each of these publications is included when you order the basic materials for IMS Workload Router. Additional copies can be obtained from the IBM Publications Web Site at URL: http://www.ibm.com/shop/publications/order/. For additional information contact your IBM representative.

Figure 2. Basic Material: Unlicensed Publications

Publication Title	Form Number
IBM IMS Workload Router for z/OS Licensed Program Specifications	GC26-8946

Figure 3 identifies the basic unlicensed or licensed publications that are not available in hardcopy format, but are available through the internet or other media for IMS Workload Router.

Figure 3. Basic Material: Other Unlicensed or Licensed Publications

Publication Title	Form Number	How Available
IBM IMS Workload Router for z/OS User's Guide	SC19-3227	http://www.ibm.com/software/data/db2imstools/library.html

Publications are available in PDF and BookManager formats on CD-ROM and on DVD on the next release of software product libraries:

- *z/OS and Software Products DVD Collection, SK3T-4271**
  *requires a DVD drive in DVD-9 (single-sided, dual-layer) format

2.3.2 Optional Program Publications

No optional publications are provided for IMS Workload Router.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for IMS Workload Router.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 4 on page 5 during the installation of IMS Workload Router. To order copies, contact your IBM representative or visit the IBM Publications Center at http://ehone.ibm.com/publications/servlet/pbi.wss?CTY=US.

Figure 4. Publications Useful During Installation

Publication Title	Form Number
IBM SMP/E for z/OS User's Guide	SA22-7773
IBM SMP/E for z/OS Commands	SA22-7771
IBM SMP/E for z/OS Reference	SA22-7772
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA22-7770

3.0 Program Support

This section describes the IBM support available for IMS Workload Router.

3.1 Program Services

Contact your IBM representative for specific information about available program services.

3.2 Preventive Service Planning

Before you install IMS Workload Router, make sure that you have reviewed the current Preventive Service Planning (PSP) information. The PSP Buckets maintain current lists (which have been identified since the package was created) of any recommended or required service for the installation of this package. This service includes software PSP information that contains HIPER and required PTFs against the base release.

If you obtained IMS Workload Router as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IMS Workload Router is older than two weeks old by the time you install the product materials, you should contact the IBM Support Center or use S/390 Software Xcel to obtain the latest PSP Bucket information. You can also obtain the latest PSP Bucket information by going to the following Web site:
http://www14.software.ibm.com/webapp/set2/psearch/search?domain=psp

For program support, access the Software Support Web site at http://www-01.ibm.com/software/support/.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for IMS Workload Router are shown as follows:

Figure 5. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
5697B87	H23J270	IMS Workload Router

3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 6 on page 7 identifies the component IDs (COMPID) for IMS Workload Router.

Figure 6. Component IDs

FMID	COMPID	Component Name	RETAIN Release
H23J270	5697B8700	IMS Workload Router	270

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IMS Workload Router. The program level refers to the APAR fixes that have been incorporated into the program. The service level refers to the PTFs that have been been incorporated into the program.

4.1 Program Level Information

The following APAR fixes against previous releases of IMS Workload Router have been incorporated into this release. They are listed by FMID.

- FMID H23J260 for IMS V11

  PM07073
  PM41093

- FMID H23J261 for IMS V10

  PM07073
  PM41093

- FMID H23J263 is for IMS V9 and no longer supported

4.2 Service Level Information

No PTFs against this release of IMS Workload Router have been incorporated into the product tape.

It is highly recommended that you frequently check the IMS Workload Router PSP Bucket for HIPER and SPECIAL Attention PTFs against all FMIDs that you must install.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating IMS Workload Router. The following terminology is used:

- *Driving system*: the system used to install the program; where SMP/E executes.

  The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.

- *Target system*: the system on which the program is configured and run.

  The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate IPL-able clone of the running system to use as a target system. The clone must include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.
- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system that is required to install IMS Workload Router.

5.1.1 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

5.1.2 Programming Requirements

Figure 7. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in this product's shipment?
Any **one** of the following:				
5694-A01	z/OS	V01.11.00	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.05.00	N/A	No

Note: Installation may require migration to new z/OS releases to be service supported. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

5.2 Target System Requirements

This section describes the environment of the target system that is required to install and use IMS Workload Router.

IMS Workload Router installs in the DBS (P115) SREL.

5.2.1 Machine Requirements

The target system can run in any hardware environment that supports the required software.

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: Installation requisites identify products that are required by and *must* be present on the system or products that are not required by but *should* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product. These products are specified as PREs or REQs.

Figure 8 (Page 1 of 2). Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in this product's shipment?
Any **one** of the following:				
5635-A01	IMS	V10.01.00	N/A	No

Figure 8 (Page 2 of 2). Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in this product's shipment?
5635-A02	IMS	V11.01.00	N/A	No
5635-A03	IMS	V12.01.00	N/A	No

Note: Installation may require migration to new z/OS releases to be service supported. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

Conditional installation requisites identify products that are *not* required for successful installation of this product but can resolve such things as certain warning messages at installation time. These products are specified as IF REQs.

IMS Workload Router has no conditional installation requisites.

5.2.2.2 Operational Requisites: Operational requisites are products that are required by and *must* be present on the system or products that are not required by but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions. These products are specified as PREs or REQs.

Figure 9. Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
Any **one** of the following:	
5635-A01	IMS V10.01.00
5635-A02	IMS V11.01.00 with APAR PM39964/PTF UK68465 and APAR PM45416/PTF UK71252
5635-A03	IMS V12.01.00 with APAR PM39983/PTF UK68466 and APAR PM45414/PTF UK71251

Conditional operational requisites identify products that are *not* required for this product to operate its basic functions but are required at run time for this product to operate specific functions. These products are specified as IF REQs.

IMS Workload Router has no conditional operational requisites.

5.2.2.3 Toleration/Coexistence Requisites:

Toleration/coexistence requisites identify products that must be present on sharing systems. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD environment at different time intervals.

IMS Workload Router has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites:

Negative requisites identify products that must *not* be installed on the same system as this product.

IMS Workload Router has no negative requisites.

5.2.3 DASD Storage Requirements

IMS Workload Router libraries can reside on all supported DASD types.

Figure 10 lists the total space that is required for each type of library.

Figure 10. Total DASD Space Required by IMS Workload Router

Library Type	Total Space Required in 3390 Trks
Target	21 Tracks
Distribution	21 Tracks

Notes:

1. For non-RECFM U data sets, IBM recommends using system-determined block sizes for efficient DASD utilization. For RECFM U data sets, IBM recommends using a block size of 32760, which is most efficient from the performance and DASD utilization perspective.
2. Abbreviations used for data set types are shown as follows.

   U Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not need to refer to other tables or program directories for the data set size.

   S Shared data set, allocated by this product and used by this product and other products. To determine the correct storage needed for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

   E Existing shared data set, used by this product and other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old release and reclaim the space that was used by the old release and any service that had been installed. You can determine whether these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

For more information about the names and sizes of the required data sets, see 6.1.8, “Allocate SMP/E Target and Distribution Libraries” on page 18.

3. All target and distribution libraries listed have the following attributes:
   - The default name of the data set may be changed.
   - The default block size of the data set may be changed.
   - The data set may be merged with another data set that has equivalent characteristics.
4. All target libraries listed have the following attributes:
   - These data sets can be SMS-managed, but they are not required to be SMS-managed.
   - These data sets are not required to reside on the IPL volume.
   - The values in the "Member Type" column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.
5. All target libraries that are listed and contain load modules have the following attributes:
   - These data sets can be in the LPA, but they are not required to be in the LPA.
   - These data sets can be in the LNKLST.
   - These data sets are not required to be APF-authorized.

The following figures describe the target and distribution libraries required to install IMS Workload Router. The storage requirements of IMS Workload Router must be added to the storage required by other programs having data in the same library.

Note: The data in these tables should be used when determining which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

Figure 11. Storage Requirements for IMS Workload Router Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SIWXBASE	Sample	any	U	PDS	FB	80	3	2
SIWXLMOD	LMOD	any	U	PDS	U	0	8	8
SIWXMAC	Data	any	U	PDS	FB	80	6	2
SIWXSAMP	Sample	any	U	PDS	FB	80	4	2

Figure 12. Storage Requirements for IMS Workload Router Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
AIWXBASE	U	PDS	FB	80	3	2
AIWXMAC	U	PDS	FB	80	6	2
AIWXMOD	U	PDS	U	0	8	8
AIWXSAMP	U	PDS	FB	80	4	2

5.3 FMIDs Deleted

Installing IMS Workload Router might result in the deletion of other FMIDs. To see which FMIDs will be deleted, examine the ++VER statement in the SMPMCS of the product.

If you do not want to delete these FMIDs at this time, install IMS Workload Router into separate SMP/E target and distribution zones.

Note: These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, see the SMP/E manuals for instructions.

5.4 Special Considerations

IMS Workload Router has no special considerations for the target system.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of IMS Workload Router.

Please note the following:

- If you want to install IMS Workload Router into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing IMS Workload Router

6.1.1 SMP/E Considerations for Installing IMS Workload Router

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of IMS Workload Router.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 13. Using values lower than the recommended values can result in failures in the installation. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. See the SMP/E manuals for instructions on updating the global zone.

Figure 13. SMP/E Options Subentry Values

Subentry	Value	Comment
DSSPACE	(200,200,500)	3390 DASD tracks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 SMP/E CALLLIBS Processing

IMS Workload Router uses the CALLLIBS function that is provided in SMP/E to resolve external references during installation. When IMS Workload Router is installed, ensure that DDDEFs exist for the following libraries:

- SDFSRESL

Note: CALLLIBS uses the previous DDDEFs only to resolve the link-edit for IMS Workload Router. These data sets are not updated during the installation of IMS Workload Router.

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IMS Workload Router:

Figure 14. Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
IWXALA	SMP/E	Sample job to allocate and initialize a new SMP/E CSI data set **(Optional)**	IBM.H23J270.F2
IWXALB	SMP/E	Sample job to allocate SMP/E data sets **(Optional)**	IBM.H23J270.F2
IWXRECEV	RECEIVE	Sample RECEIVE job	IBM.H23J270.F2
IWXALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.H23J270.F2
IWXDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.H23J270.F2
IWXAPPLY	APPLY	Sample APPLY job	IBM.H23J270.F2
IWXACCEP	ACCEPT	Sample ACCEPT job	IBM.H23J270.F2

You can access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 14 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the tape or product files by submitting the following job. Depending on your distribution medium, use either the //TAPEIN or the //FILEIN DD statement and comment out or delete the other statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

```
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//*************************************************************
//* Make the //TAPEIN DD statement below active if you install*
//* from a CBPDO tape by uncommenting the DD statement below. *
//*************************************************************
//*TAPEIN   DD DSN=IBM.H23J270.F2,UNIT=tunit,
```

```
//*         VOL=SER=volser,LABEL=(x,SL),
//*         DISP=(OLD,KEEP)
//*************************************************************
//* Make the //TAPEIN DD statement below active if you install*
//* from a product tape received outside the CBPDO process    *
//* (using the optional SMP/E RECEIVE job) by uncommenting    *
//* the DD statement below.                                   *
//*************************************************************
//*TAPEIN   DD DSN=IBM.H23J270.F2,UNIT=tunit,
//*         VOL=SER=23J270,LABEL=(3,SL),
//*         DISP=(OLD,KEEP)
//*************************************************************
//* Make the //FILEIN DD statement below active for           *
//* downloaded DASD files.                                    *
//*************************************************************
//*FILEIN   DD DSN=IBM.H23J270.F2,UNIT=SYSALLDA,DISP=SHR,
//*         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(20,10,5))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=xxxxIN,OUTDD=OUT
/*
```

See the following information to update the statements in the previous sample:

TAPEIN:

tunit is the unit value that matches the product tape.

volser is the volume serial that matches the product tape.

x is the tape file number that indicates the location of the data set name on the tape. See the documentation that is provided by CBPDO for the location of IBM.H23J270.F2 on the tape.

FILEIN:

filevol is the volume serial of the DASD device where the downloaded files reside.

OUT:

jcl-library-name is the name of the output data set where the sample jobs are stored.

dasdvol is the volume serial of the DASD device where the output data set resides.

SYSIN:

xxxxIN is either TAPEIN or FILEIN depending on your input DD statement.

6.1.5 Allocate SMP/E CSI (Optional)

If you are using an existing CSI, do not execute this job.

If you are allocating a new SMP/E data set for this install, edit, and submit sample job IWXALA to allocate the SMP/E data set for IMS Workload Router. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive a return code of 0 if this job runs correctly.

6.1.6 Initialize CSI zones (Optional)

Edit and submit sample job IWXALB to initialize SMP/E zones for IMS Workload Router. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive a return code of 0 if this job runs correctly.

6.1.7 Perform SMP/E RECEIVE

If you have obtained IMS Workload Router as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the IMS Workload Router FMIDs, service, and HOLDDATA that are included on the CBPDO tape. For more information, see the documentation that is included in the CBPDO.

You can also choose to edit and submit sample job IWXRECEV to perform the SMP/E RECEIVE for IMS Workload Router. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive a return code of 0 if this job runs correctly.

6.1.8 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job IWXALLOC to allocate the SMP/E target and distribution libraries for IMS Workload Router. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive a return code of 0 if this job runs correctly.

6.1.9 Create DDDEF Entries

Edit and submit sample job IWXDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for IMS Workload Router. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive a return code of 0 if this job runs correctly.

6.1.10 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job IWXAPPLY to perform an SMP/E APPLY CHECK for IMS Workload Router. Consult the instructions in the sample job for more information.

   HOLDDATA introduces ERROR HOLDs against FMIDs for HIPER APARs. Before the installation, ensure that you have the latest HOLDDATA, which is available through several different portals, including http://service.software.ibm.com/holdata/390holddata.html. Install the FMIDs regardless of the status of unresolved HIPERs. However, do not deploy the software until the unresolved HIPERs are analyzed to determine applicability.

   To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the APPLY CHECK. This is because the SMP/E root cause analysis identifies the cause only of *errors* and not of *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings, instead of errors).

   Here is a sample to install FMIDs when ++HOLDs for HIPERs exist for the FMIDs that you install:

   a. To ensure that all recommended and critical service is installed with the FMIDs, if you have received the latest HOLDDATA, add the FIXCAT operand to the APPLY command as shown below.

   b. SMP/E V3.5 or higher:

      ```
      APPLY S(fmid,fmid,...)
      FORFMID(fmid,fmid,...)
      SOURCEID(RSU*)
      FIXCAT(IBM.ProductInstall-RequiredService)
      GROUPEXTEND .
      ```

      Some HIPER APARs might not have PTFs available yet. You have to analyze the symptom flags to determine if you want to bypass the specific ERROR HOLDs and continue the installation of the FMIDs.

      This method requires more initial research, but can provide resolution for all HIPERs that have fixes available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

   c. To install the FMIDs without regard for the HIPERs, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. In this way, you can install FMIDs even though HIPER ERROR HOLDs against them still exist. Only the HIPER ERROR HOLDs are bypassed. After the FMIDs are installed, run the SMP/E REPORT ERRSYSMODS command to identify missing HIPER maintenance.

      ```
      APPLY S(fmid,fmid,...)
      FORFMID(fmid,fmid,...)
      SOURCEID(RSU*)
      GROUPEXTEND
      BYPASS(HOLDCLASS(HIPER)) .
       ..any other parameters documented in the program directory
      ```

This method is the quicker of the two, but requires subsequent review of the REPORT ERRSYSMODS to investigate any HIPERs. If you have received the latest HOLDDATA, you can also choose to run REPORT MISSINGFIX for Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

If you bypass HOLDs during the installation of the FMIDs because PTFs are not yet available, you can be notified when the PTFs are available by using the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink.

2. After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

   Note: The GROUPEXTEND operand indicates that SMP/E applies all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

   Expected Return Codes and Messages from APPLY CHECK: You will receive a return code of 0 if this job runs correctly.

   Expected Return Codes and Messages from APPLY: You will receive a return code of 0 if this job runs correctly.

6.1.11 Perform SMP/E ACCEPT

Edit and submit sample job IWXACCEP to perform an SMP/E ACCEPT CHECK for IMS Workload Router. Consult the instructions in the sample job for more information.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the ACCEPT CHECK. This is because the SMP/E root cause analysis identifies the cause of only *errors* but not *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings rather than errors).

Before you use SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. In this way, you can save the entries that are produced from JCLIN in the distribution zone whenever a SYSMOD that contains inline JCLIN is accepted. For more information about the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

After you take actions that are indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

Note: The GROUPEXTEND operand indicates that SMP/E accepts all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

Expected Return Codes and Messages from ACCEPT CHECK: You will receive a return code of 0 if this job runs correctly.

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edits or binds the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages that indicate unresolved external references, which will result in a return code of 4 during

the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.

Expected Return Codes and Messages from ACCEPT: You will receive a return code of 0 if this job runs correctly.

6.1.12 Run REPORT CROSSZONE

The SMP/E REPORT CROSSZONE command identifies requisites for products that are installed in separate zones. This command also creates APPLY and ACCEPT commands in the SMPPUNCH data set. You can use the APPLY and ACCEPT commands to install those cross-zone requisites that the SMP/E REPORT CROSSZONE command identifies.

After you install IMS Workload Router, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries that describe all the target and distribution libraries to be reported on.

For more information about REPORT CROSSZONE, see the SMP/E manuals.

6.2 Activating IMS Workload Router

The publication *IBM IMS Workload Router for z/OS User's Guide, SC19-3227* contains the necessary information to customize and use IMS Workload Router.

7.0 Notices

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APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the IBM Customer Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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Program Directory for IBM IMS Workload Router for z/OS, October 2011

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```
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satisfied  <====================>  dissatisfied  applicable
    1        2        3        4         5            N
```

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Contents of Program Directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the product	1	2	3	4	5	N
Readability and organization of Program Directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
Technical level of the installation tasks	1	2	3	4	5	N
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___ ServerPac
___ Independent
___ Other

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Were the people who did the installation experienced with the installation of z/OS products?

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