



RSU INFORMATION FOR Z/VM® VERSION 4 RELEASE 4.0 INSTALL PACKAGE

If you are installing this RSU as part of your initial z/VM system installation you should refer the z/VM Guide for Automated Installation and Service (GC24-6064). When installing the z/VM RSU as preventive maintenance for the z/VM components, refer to either chapter 8 in the z/VM Guide for Automated Installation and Service (or the z/VM Summary for Automated Installation and Service), if you are using the preferred method of servicing your system, -- or -- chapter 2 in the z/VM Service Guide (GC24-5993), if you are using the traditional service method. When using an RSU as preventive maintenance for licensed products or features, refer to the service instructions in the specific products/features program directory.

The following items provide highlights of the z/VM Version 4 Release 4.0 RSU package:

- RSU Structure
- RSU Package Level Identifier
- PTF For Ordering RSU
- Preventive Service Planning (PSP) Information
- Electronic Ordering Capability
- Ordering Corrective Service
- CP, CMS and GCS Service Level updated to RSU Service Level
- TCP/IP Service Level updated to RSU Service Level
- RSCS Service Level updated to RSU Service Level
- DirMaint™ Service Level updated to RSU Service Level
- RTM Service Level updated to RSU Service Level
- VM Home Page on the Internet.

New IBM® Supplied Override PPF Name

The **esa** PPF (that was used up until VM/ESA® 2.4.0) has been renamed to **zvm** PPF. The new ZVM PPF (and \$PPF) is to be used to install and service z/VM. This is documented in the *Migration Guide*, *Service Guide* and *VMSES/E Introduction and Reference* manuals.

Note: If you have your own PPFs that override the ESA PPF then you will need to change them to override the new ZVM PPF.

RSU STRUCTURE

Along with the z/VM installation package, and the set of products shipped with z/VM 4.4.0, there is a stacked product RSU at GA. This RSU contains the current level of IBM recommended service at the time the order is shipped.

The stacked RSU is cumulative. This stacked RSU provides service for the following products/components:

4VMVMK40	z/VM	4.4.0	-	VMSES
4VMVMF40	z/VM	4.4.0	-	REXX
4VMVMA40	z/VM	4.4.0	-	CMS
4VMVMB40	z/VM	4.4.0	-	CP
4VMVMI40	z/VM	4.4.0	-	DV
4VMVML40	z/VM	4.4.0	-	GCS
4VMVMH40	z/VM	4.4.0	-	TSAF
4VMVMD40	z/VM	4.4.0	-	AVS
4VMVMQ40	z/VM	4.4.0	-	LE
4TCPIP40	Level	440	-	TCPIP
4CMHCD40	FL	4.4.0	-	VMHCD
4VMPTK40	FL	4.4.0	-	PERFTK
4VMPRF10	FL	4.1.0	-	VMPRF
4VMRTM10	FL	4.1.0	-	RTM
4VMDVH10	FL	4.1.0	-	DIRM
5684096K		3.2.0	-	RSCS
40SASF40		4.4.0	-	OSA
5654A09A		3.1.2	-	TSM
5767002P		1.10.0	-	RACF®

Notes:

1. All products shipped on the z/VM 4.4.0 DDRs are serviced on the Stacked RSU.
2. RSU will provide cumulative service for z/VM 4.4.0 components, TCP/IP Level 440, PRF Function Level 4.1.0, VM Performance Toolkit Function Level 4.4.0, VM OSA/SF Function Level 4.4.0, HCD/HCM for z/VM Function Level 4.4.0, RTM Function Level 4.1.0, Dirmaint Function Level 4.1.0. This service will be shipped on the Stacked RSU only. These products will NOT have INDIVIDUAL RSUs.
3. The following products will also be included on the Stacked RSU, but will ship only the NEW SERVICE, because the BASE DDRs are shipped with 0101 RSU service for all these following products.

RSCS	3.2.0
TSM	3.1.2 (formerly known as ADSM 3.1.2)
RACF	1.10.0

RSU PACKAGE LEVEL IDENTIFIER

In addition to the individual product RSU service levels, the z/VM stacked RSU also has a package level identifier. The RSU package level identifier is:

VRNNRSU - where V is the Version number, R is the release number and NN is the sequential number of the tape for that version and release.
Example: 4401RSU, 4402RSU, etc.

The package level will be reflected on the external physical tape label. This package consists of a stacked product RSU tape. The individual service level of an individual product is reflected separately. The service level of all products and features serviced by RSU will continue to be in the format of YYNN level. Refer to VM RSU internet web site at:

<http://www.ibm.com/eserver/zseries/zvm/service/rsu/stk440.html>

to see information about the Stacked RSU package level and corresponding individual product RSU levels.

PTF FOR ORDERING RSU

You can obtain the current level of the stacked RSU and service ALL products or ANY individual product you want to service. When you are ready to apply service order the following PTF. One reason this might be necessary would be if some period of time has elapsed between the time you received your shipment and the time you are able to begin the install process.

Product	PTF
----- Stacked Install RSU	----- UM97440

PREVENTIVE SERVICE PLANNING (PSP) INFORMATION

The PSP upgrade and subset names for z/VM Version 4 Release 4.0, as well as the products and features shipped with the z/VM 4.4.0 install package, are listed in the table below. The upgrades will contain subsets for each RSU (ex. 0301RSU, 0302RSU, 0303RSU, etc.). These subsets will contain any additional service recommendations, pertaining to the specific RSU, which you should consider installing, upon completing your installation.

RSU Service Recommendations buckets are maintained for the two latest RSUs on RETAIN®. The recommended service for all components for each product serviced on the RSU is maintained in each of these buckets.

The RSU PSP buckets are listed under the specific upgrade name. They follow the RSU naming convention:

YYNNRSU, where YY is year
NN is the number of the RSU during the year.

When preparing to install, check with your IBM Support Center or use IBMLink™ (ServiceLink) to determine if there are additional service recommendations for the RSU. You can also check to see if there is a more current level of the Stacked RSU that you can order to use with your install. If you have IBMLink access you may now also logon through the internet by going to the URL:

<http://www.ibmLink.ibm.com/>

From IBMLink select ServiceLink, then PSP to get to the Preventive Service Planning data. To view this information supply the UPGRADE and SUBSET names in the fields on the panel. You can also use this facility to order the service by clicking on the SUBMIT button. The internet ServiceLink interface provides a new option of delivery to an internet server.

The upgrade and subset names are listed in the following table:

Table 1. RSU Upgrade and Subset IDs

PRODUCT	Upgrade	Subset
z/VM 4.4.0	ZVM440	yynnRSU
TCP/IP 4.4.0	TCPIP440	yynnRSU
z/VM HCD 4.4.0	ZVMHCD440	yynnRSU
VMPRF 4.1.0	VMPRF410	yynnRSU
Performance Toolkit 4.4.0	VMPTK440	yynnRSU
RTM 4.1.0	VMRTM410	yynnRSU
DirMaint 4.1.0	DIRM410	yynnRSU
OSA/SF 4.4.0	VMOSASF440	yynnRSU
RSCS 3.2.0	RSCSV32	yynnRSU
ADSM 3.1.0 (TSM 4.1.0)	ADSM312	yynnRSU
RACF 1.10.0	RACFVM1100	yynnRSU

The Service content of the latest RSU is provided on internet web site at:

<http://www.vm.ibm.com/service/rsu/>

ELECTRONIC ORDERING CAPABILITY

The RSU tapes are available for ordering electronically from IBM. This eliminates the need for customers who have the Service Request and Delivery (SRD) function of IBMLink/ServiceLink to contact the IBM Support Center to order the latest RSU. IBM internal customers can order the RSU using the PSPP function of RETAIN.

This capability for ordering the RSU electronically is possible due to the Common Corrective Service System (CCSS) which was implemented by IBM around the world in 1992. CCSS is an internal IBM system which standardizes the process of producing corrective service packages for IBM Software. This system is driven entirely through the process of ordering a PTF. Consequently, the only way to trigger an order for the RSU package, is to order a PTF. The benefit of having the RSU available via CCSS is simultaneous world wide availability of the RSU. Once the RSU image is loaded into the CCSS system, it is available at the same time world wide.

The RSU ordering mechanism APARs and PTFs were created to make use of this ordering facility. Refer to the "RSU APAR and PTF" section of this memo for the ordering mechanism APAR and PTF numbers. The APAR description will be updated during each RSU cycle to indicate the current level of the RSU. The current RSU level can be found in the second line of the APAR abstract, the SUBMITTOR and PIN pages of the APAR.

Whenever possible the PTF numbering scheme for the RSU follows a standard convention. That convention is the PTF prefix followed by 97, followed by version (V), release (R) and modification level (ie. UM97vrm).

ORDERING CORRECTIVE SERVICE

Products serviced by RSU have the advantage of ordering corrective service with requisites back to an RSU level. This means that customers who stay current with preventive service via the RSU can have corrective service requisite strings dramatically reduced. For those customers who have the Service Request and Delivery (SRD) function of IBMLink/ServiceLink, this will mean that a higher percentage of COR fixes can be shipped electronically.

Appendix B, 'Determining the RSU Service Level, in the z/VM Guide for Automated Installation and Service (GC24-6064) or Chapter 3 of the z/VM Version 4 Release 4.0 Service Guide (GC24-5993), page 3-1 section titled 'Determine RSU Service Level Before Ordering COR Service', details how to query the RSU level of service which has been received on your system. Use this (ex. 0301, 0302, 0303, etc.) as the current service level and RSU as the service type when ordering corrective service.

CP, CMS AND GCS SERVICE LEVEL UPDATED TO RSU SERVICE LEVEL

1. An APAR and a PTF are shipped with each RSU tape to update the CP Service Level to the 'RSU Service Level'. The APAR and the PTF are shipped ONLY on the RSU tape. The PTF cannot be Correctively ordered from IBM. The PTF is UMRSUxx.

The CP Service Level is a 4 digit number that directly correlates to the 4 digits of the 'RSU Service Level'.

'RSU Service Level' is defined by --> 'YYNN'

where, YY represents last digit of the year and
NN represents the number of the RSU in a given year.

Hence, the CP Service Level will be --> 'YYNN'

Note: The new CP Service Level will only be shown after the nucleus is built and IPLed.

After you IPL the CP nucleus built using the RSU tape, you can issue the QUERY CPLEVEL command to check the new CP Service Level.

QUERY CPLEVEL Example for the 0301RSU:

```
QUERY CPLEVEL
```

```
z/VM Version 4 Release 4.0, service level 0301
```

(Only the first line of the output is shown in this example)

2. An APAR and a PTF are shipped with each RSU tape to update the CMS Service Level to the 'RSU Service Level'. The APAR and the PTF are shipped ONLY on the RSU tape. The PTF cannot be Correctively ordered from IBM. The PTF is UMRSUxx.

The CMS Service Level is a 3 digit number that directly correlates to the last 3 digits of the 'RSU Service Level'.

'RSU Service Level' is defined by --> 'YNN'

where, Y represents last digit of the year and
NN represents the number of the RSU in a given year.

Hence, the CMS Service Level will be --> 'YNN'

Note: The new CMS Service Level will only be shown after the nucleus is built and IPLed.

After you IPL the CMS nucleus built using the RSU tape, you can issue the QUERY CMSLEVEL command to check the new CMS Service Level.

QUERY CMSLEVEL Example for the 0301RSU:

```
QUERY CMSLEVEL
```

```
CMS Level 20, Service Level 301
```

3. An APAR and a PTF are shipped with each RSU tape to update the GCS Service Level to the 'RSU Service Level'. The APAR and the PTF are shipped ONLY on the RSU tape. The PTF cannot be Correctively ordered from IBM. The PTF is UMRSUxx.

The GCS Service Level is a 3 digit number that directly correlates to the last 3 digits of the 'RSU Service Level'.

'RSU Service Level' is defined by --> 'YNN'

where, Y represents last digit of the year and
NN represents the number of the RSU in a given year.

Hence, the GCS Service Level will be --> 'YNN'

Note: The new GCS Service Level will only be shown after the nucleus is built and IPLed.

After you IPL the GCS nucleus built using the RSU tape, you can issue the QUERY GCSLEVEL command to check the new GCS Service Level.

QUERY GCSLEVEL Example for the 0301RSU:

```
QUERY GCSLEVEL
```

```
z/VM Version 4 Release 4.0, Service level 301
```

TCP/IP SERVICE LEVEL UPDATED TO RSU SERVICE LEVEL

For TCP/IP Level 440 an APAR and a PTF are shipped with each RSU tape to update the TCP/IP Service Level to the 'RSU Service Level'. The APAR and the PTF are shipped ONLY on the RSU tape. The PTF cannot be ordered correctively from IBM. The Service Level is set by a PTF UMRSUxx shipped on each RSU tape.

The TCP/IP Service Level is a 4 digit number that directly correlates to the 4 digits of the 'RSU Service Level'.

'RSU Service Level' is defined by --> 'YYNN'
where, YY represents last digit of the year and
NN represents the number of the RSU in a given year.

Hence, the TCP/IP Service Level will be --> 'YYNN'

Note: The new TCP/IP Service Level will only be shown after you have applied this RSU and placed the service into production.

You can use the NETSTAT command to check the new TCP/IP RSU level. The following is an example of the output from the command at a 0301RSU level.

Issue:

netstat level

```
VM TCP/IP Netstat Level 440  
IBM xxxx; z/VM Version 4 Release 4.0, service level 0301,  
VM TCP/IP Level 440; RSU 0301
```

(Note that the response shown above is split onto multiple lines so that it could be correctly formatted for printing)

Note: To use the TCP/IP NETSTAT LEVEL command, the TCPIP server (or the TCP/IP "stack") must be operating, and the TCP/IP NETSTAT command must be available. The NETSTAT command must be available. It will always be available on the TCPMAINT 592 minidisk. NETSTAT may also be available on the CMS 190 (S) disk, if the TCP/IP client files were previously copied to that disk. You will receive an

"Unknown CP/CMS command" message if NETSTAT LEVEL is issued when the TCPMAINT 592 is not accessed, and the client code is not on the S disk.

RSCS SERVICE LEVEL UPDATED TO RSU SERVICE LEVEL

In RSCS Version 3 Release 2.0 an APAR and a PTF are shipped with each RSU tape to update the Service Level to the 'RSU Service Level'. The APAR and the PTF are shipped ONLY on the RSU tape. The PTF cannot be Correctively ordered from IBM. The PTF is UVRSUxx.

The RSCS Service Level is a 4 digit number that directly correlates to the 4 digits of the 'RSU Service Level'.

'RSU Service Level' is defined by --> 'YYNN'

where, YY represents the last 2 digits of the year and
NN represents the number of the RSU in a given year.

Hence, the RSCS 3.2.0 Service Level will be --> 'YYNN'

After you initialize the RSCS LOADLIB built using the RSU tape, you can issue the QUERY command to check the new RSCS Service Level.

Log on to the RSCS console.

Issue RSCS Query command

QUERY example from the RSCS console for the 0301RSU:

```
RSCS Query SYStem LEVl
```

```
RSCS Networking Version 3, Release 2.0-0301
```

After you initialize the Data Interchange Manager by issuing the ACHAMAIN EXEC built using the RSU tape, you can issue the QUERY commands to check the new Data Interchange Manager Service Level.

Log on to XCHANGE.

Issue RSCS Data Interchange Manager Query command

QUERY example from the XCHANGE console for the 0301RSU:

```
QUERY SYSTEM
```

```
ACHAMA621I Files processed = 0, rejected = 0
```

```
ACHAMA619I Nick Override is All
```

```
ACHAMA620I Nick Priv is 'Off'
```

```
ACHAMA000I IBM VM RSCS Data Interchange Manager Release 3.2.0301 Ready
```

DIRMAINT SERVICE LEVEL UPDATED TO RSU SERVICE LEVEL

In DirMaint Function Level 410 an APAR and a PTF are shipped with each RSU tape to update the Service Level to the 'RSU Service Level'. The APAR and the PTF are shipped ONLY on the RSU tape. The PTF cannot be Correctively ordered from IBM. The PTF is UVRSUxx.

The DirMaint Service Level is a 4 digit number that directly correlates to the 4 digits of the 'RSU Service Level'.

'RSU Service Level' is defined by --> 'YYNN'

where, YY represents the last 2 digits of the year and
NN represents the number of the RSU in a given year.

Hence, the DirMaint 4.1.0 Service Level will be --> 'YYNN'

Note: The new DirMaint Service Level will only be shown after you have applied this RSU and placed the service into production.

You can use the QUERY command to check the new DirMaint RSU level. The following is an example of the output from the command at a 0301RSU level.

QUERY example from the DIRMAINT console for the 0301RSU :

Log on to DIRMAINT.

Issue DIRMAINT Query command

Query DVHLEVEL

Sample DIRMAINT console log

```
query dvhlevel
DVHWAI2146I Wakeup caused by console attention on yy/mm/dd
          at hh:mm:ss.
DVHREQ2290I Request is: QUERY DVHLEVEL
DVHREQ2288I Your QUERY request for DIRMAINT at * has been
          accepted.
DVHQRY3844I Service machine DIRMAINT at node GDLVMK1
          is currently running:
DVHQRY3844I IBM Directory Maintenance for VM/ESA
          (DirMaint)
DVHQRY3844I 5748-XE4 (C) Copyright IBM Corporation
          2001, 2003.
DVHQRY3844I Version 4 Release 1 Modification 0
          Service Level 0301.
DVHREQ2289I Your QUERY request for DIRMAINT at * has
          completed; with RC = 0.
DIRMAINT GDLVMK1. - yyyy/mm/dd; T=2.66/2.81 hh:mm:ss
DVHWAI2140I Waiting for work on yy/mm/dd at hh:mm:ss.
```

RTM SERVICE LEVEL UPDATED TO RSU SERVICE LEVEL

In RTM Function Level 410 an APAR and a PTF are shipped with each RSU tape to update the Service Level to the 'RSU Service Level'. The APAR and the PTF are shipped ONLY on the RSU tape. The PTF cannot be Correctively ordered from IBM. The PTF is UGRSUxx.

The RTM Service Level is a 4 digit number that directly correlates to the 4 digits of the 'RSU Service Level'.

'RSU Service Level' is defined by --> 'YYNN'

where, YY represents the last 2 digits of the year and
NN represents the number of the RSU in a given year.

Hence, the RTM 4.1.0 Service Level will be --> 'YYNN'

Note: The new RTM Service Level will only be shown after you have applied this RSU and placed the service into production.

You can use the VMC command to check the new RTM RSU level. The following is an example of the output from the command at a 0301RSU level.

VMC VMRTM Q LEVEL

VMC VMRTM NEXT

```
+-----+
| z/VM  CPU2064 SERIAL 031515   5G DATE 09/20/01 START 13:28:15 END 13:58:15
| MODADDR  MODNAME APAR      RTMVRSN CPVRSN  DATE      TIME
+-----+
...
...
00681000 RTMRSU  RSU0301  RTM104  ESA204  09/19/01  15:20
...
...
```

VM HOME PAGE ON THE INTERNET

The z/VM web site will keep you up to date on the latest news, activities and information pertaining to the VM Operating system. Please visit the z/VM web site at:

<http://www.vm.ibm.com/>

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