

z/OS



Resource Measurement Facility NewsFLASH

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Note

Before using this information and the product it supports, be sure to read the general information under "Notices" on page A-1.

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This edition applies to Version 1 Release 2 of z/OS (5694-A01) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About This Book

The Resource Measurement Facility (RMF) is the strategic IBM product for performance management in a z/OS host environment.

This NewsFLASH provides information in addition to the current RMF library.

z/OS Version 1 Release 2

New Address of RMF Home Page:

The address of the RMF home page has changed. The new URL is now:

<http://www.ibm.com/servers/eserver/zseries/zos/rmf/>

This is reflected in all books of the RMF library.

- This edition of the RMF NewsFLASH contains one chapter: “Additional Fields in the SMF Records” on page 1-1.

Additional Fields in the SMF Records

Changes in the SMF records that are not yet documented in *z/OS MVS System Management Facilities (SMF)*, are described in this chapter in the following sections:

- “Record Type 70 — Subtype 2”
- “Record Type 78 — Subtype 3” on page 1-2

Record Type 70 — Subtype 2

Starting with z/OS V1R2, record type 70 has a new **subtype 2** for measurements of cryptographic processors. Besides measurement data for PCI cryptographic coprocessors, **Subtype 2** also contains data for PCI cryptographic accelerators. It has the following additional section:

Cryptographic accelerator data section

Contains measurement data for PCI cryptographic accelerators.

The header fields that locate this section are documented in “Header/Self-defining Section”.

Header/Self-defining Section

This section contains the common SMF record headers fields and the triplet fields (offset/length/number), that locate the Cryptographic accelerator data section on the record.

Offsets	Name	Length	Format	Description
Individual header extension for subtype 2:				
44	2C SMF7024S	4	binary	Offset to cryptographic accelerator data section.
48	30 SMF7024L	2	binary	Length of cryptographic accelerator data section.
50	32 SMF7024N	2	binary	Number of cryptographic accelerator data sections.

Subtype 2 — PCI Cryptographic Hardware Activity

Cryptographic Accelerator Data Section

There is one section per PCI cryptographic accelerator.

Offsets	Name	Length	Format	Description
0	0 R7024AX	1	binary	Crypto processor index.
1	1 R7024CT	1	binary	Crypto processor type (X'04').
2	2	2		Reserved.
4	4 R7024SF	4	s_float	Scaling factor for this PCI cryptographic accelerator (PCICA). Execution times in this data section have to be multiplied by this scaling factor to achieve a value in seconds.
The following block of data exists for each of the five engines of a PCI cryptographic accelerator.				
8	8 R7021MET	8	binary	Execution time for all operations in 1024-bit-ME format.
16	10 R7021MEC	8	binary	Number of all operations in 1024-bit-ME format.
24	18 R7022MET	8	binary	Execution time for all operations in 2048-bit-ME format.
32	20 R7022MEC	8	binary	Number of all operations in 2048-bit-ME format.

Offsets	Name	Length	Format	Description
40	28 R7021CRT	8	binary	Execution time for all operations in 1024-bit-CRT format.
48	30 R7021CRC	8	binary	Number of all operations in 1024-bit-CRT format.
56	38 R7022CRT	8	binary	Execution time for all operations in 2048-bit-CRT format.
64	40 R7022CRC	8	binary	Number of all operations in 2048-bit-CRT format.

Record Type 78 — Subtype 3

Record type 78 has additional data in *subtype 3* for measurements of I/O queuing activity.

Subtype 3 — I/O Queuing Activity

Control Section

Offsets	Name	Length	Format	Description
1	1 R783GFLG	1	binary	IOQ global flags. Bit Meaning When Set 5 IOP utilization data available 6-7 Reserved.

IOP Initiative Queue Data Section

Offsets	Name	Length	Format	Description
12	C	4		Reserved.
16	10 R783IIPB	8	I_float	Number of times the I/O processor was busy.
24	18 R783IIFI	8	I_float	Number of times the I/O processor was idle.
32	20 R783IIFS	8	I_float	Number of I/O functions initially started.
40	28 R783IIFI	8	I_float	Number of processed I/O interrupts.
48	30 R783ICPB	8	I_float	Number of times an I/O was retried due to channel path busy.
56	38 R783IDPB	8	I_float	Number of times an I/O was retried due to director port busy.
64	40 R783ICUB	8	I_float	Number of times an I/O was retried due to control unit busy.
72	48 R783IDVB	8	I_float	Number of times an I/O was retried due to device busy.

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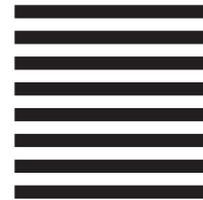
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