

z/OS V2.5 IBM Education Assistant

Solution Name: RMF CF Monopolization Avoidance Support

Solution Element(s): RMF



Agenda

- Trademarks
- Objectives
- Overview
- Usage & Invocation
- Interactions & Dependencies
- Upgrade & Coexistence Considerations
- Installation & Configuration
- Summary
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Trademarks

- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.
- Additional Trademarks:
 - None

Objectives

- Explain purpose/usage of RMF deliverable
 - RMF online monitoring with Monitor III and Distributed Data Server (DDS)
 - Introduce the new Monitor III reporting capabilities related to CF Monopolization Avoidance
 - Introduce the new DDS reporting capabilities related to CF Monopolization Avoidance
 - RMF Postprocessor
 - Introduce the new Postprocessor reporting capabilities related to CF Monopolization Avoidance.

Overview

- Who (Audience)
 - z/OS Performance Analysts
- What (Solution)
 - Introduce new Monitor III and Postprocessor measurements to monitor Coupling Facility delays due to Monopolization Avoidance.
- Wow (Benefit / Value, Need Addressed)
 - RMF online monitoring with Monitor III and Distributed Data Server:
 - Used to monitor Coupling Facility delays due to Task Monopolization Avoidance
 - RMF Postprocessor reporting:
 - Used to monitor Coupling Facility delays due to Task Monopolization Avoidance

Usage & Invocation

Monitor III CFACT report

New fields for use with User Reports of CF Monopolization Avoidance measurements

CFACT - Tabular report data table ERBCFAT3

RMF builds ERBCFAT3 when using CFACT as a report type.

Name	Type	Meaning	Report
CFADTLLN	K	Logical line number	-
CFADTPSN	K	Sequence number	-
CFAPSTRU	N	Structure name	Yes
CFAPTYPE	N	Structure type	Yes

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CFAPMONC	N	Operation count delayed for CF monopolization	Util
CFAPMQRT	N	Average CF monopolization delay time	Util

Usage & Invocation

RMF DDS Structure Activity for the CFACT Report Support

- The browser-based version of CFACT report can be requested from the RMF Distributed Data Server (DDS) using the following URL:

```
http://hostname:8803/gpm/rmfm3.xml?report=CFACT&resource=%22,,SYSPLEX%22
```

My View ? RMF												
20200601083820												
Async Changed %	Async Delay %	Avg Queued Request Time	Converted Request Count	Operation Count Delayed for Dump Serialization	Queued Operation Count	Maximum Number of Users	Total Number of Users	Number of Problem Users	Rebuild %	Avg CF monopolization delay time	Operation Count Delayed For CF Monopolization	CF Name
↓↑	↓↑	↓↑	↓↑	↓↑	↓↑	↓↑	↓↑	↓↑	↓↑	↓↑	↓↑	↓↑

Avg CF monopolization delay time

Avg CF Monopolization Delay Time
Ratio of summed service time for CF Monopolization requests (in microseconds) to the number of times delayed for CF Monopolization.

Rebuild %

Operation Count Delayed For CF Monopolization
Operation count delayed for CF monopolization.

Usage & Invocation

Commands:

- RMF Postprocessor CF report:

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COUPLING FACILITY ACTIVITY

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z/OS V2R5

SYSplex PLEX01

START 03/01/2021-19.44.34

INTERVAL 000.15.00

CONVERTED TO z/OS V2R5 RMF

END 03/01/2021-19.59.34

CYCLE 01.000 SECONDS

COUPLING FACILITY NAME = CF01

COUPLING FACILITY STRUCTURE ACTIVITY

STRUCTURE NAME = STRUCT01

TYPE = LIST

STATUS = ACTIVE

ENCRYPTED = NO

SYSTEM NAME

REQ

TOTAL

AVG/SEC

REQ

% OF ALL

-SERV TIME(MIC)-

AVG

STD_DEV

REASON

REQ

% OF REQ

DELATED REQUESTS

AVG TIME(MIC)

STD_DEV

/ALL

SYS1

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SYNC

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Interactions & Dependencies

- Software Dependencies
 - None
- Hardware Dependencies
 - CFCC monopolization of CF tasks avoidance made available on the z15 GA1 machine.
- Exploiters
 - None.

Upgrade & Coexistence Considerations

- None.

Installation & Configuration

- This support is included in the GA shipment of the z/OS V2.5 RMF (HRM77D0) deliverable.

Summary

- Introduced new SMF Type 74 Subtype 4 Coupling Facility Monopolization Avoidance measurements.
- Introduced enhanced CF Structure Activity report section of the Postprocessor CF Activity report.
- Introduced new Monitor III hidden fields of the CFACT report.
- Introduced new CFACT report fields displayed in the RMF Data Portal.
- Introduced new performance metrics displayed in RMF PM client, z/OSMF RM Plugin, and RMF Data Portal.

Appendix

- RMF - <https://github.com/IBM/IBM-Z-zOS/tree/master/zOS-RMF>
 - Contains Product information, presentations, etc.
- Documentation and news
 - RMF Report Analysis, SC34-2665
 - RMF User's Guide, SC34-2664
 - RMF Programmer's Guide, SC34-2667
 - Latest version of PDF files can be downloaded from:
<http://www.ibm.com/systems/z/os/zos/bkserv/>