Getting Started with the Sub-Capacity Reporting Tool

Sub-Capacity Reporting Tool (SCRT) Overview

The Sub-Capacity Reporting Tool (SCRT) generates sub-capacity reports that you submit to IBM for billing and licensing purposes for price metrics including AWLC, AEWLC, WLC, EWLC, zNALC, MWLC, CMLC, or for select IPLA products on z/OS. SCRT also supports Tailored Fit Pricing for IBM Z offerings, including DevTest Solution, New Application Solution, and Enterprise Consumption Solution.

SCRT processes CPU activity and software usage data from your systems to generate the report. On a monthly basis, you generate the applicable sub-capacity report (based on your software license contracts or other agreements with IBM) and submit it to IBM via License Management Support (LMS).

General information on IBM Z Software Pricing can be found at the following location: https://www.ibm.com/it-infrastructure/z/software/pricing

Additional information on sub-capacity pricing can be found at the following locations:
- Sub-Capacity for z/OS for additional information unique to z/OS customers.
- Sub-Capacity for z/TPF for additional information unique to z/TPF customers.
- Sub-Capacity for z/VSE for additional information unique to z/VSE customers.

Sub-Capacity Reporting Tool Instructions

You are required to use the most recent version of SCRT (though not necessarily the most recent release or modification) to generate your sub-capacity reports. The IBM Sub-Capacity Reporting Tool (SCRT) Current Levels document lists the most recent SCRT level along with a list of features and updates:
https://ibm.biz/SCRTCurrentLevels

SCRT is included with z/OS 2.3 and later. For customers on prior releases of z/OS, who do not have z/OS in their environment, or who prefer to run SCRT on a Windows or Linux platform, can download SCRT from the IBM Z Software Pricing Tools site:
https://www.ibm.com/it-infrastructure/z/software/pricing-tools

Instructions for installing and running SCRT can be found in the SCRT User's Guide:
https://ibm.biz/SCRTUsersGuide

Sub-Capacity Reporting Tool Frequently Asked Questions

How does the Sub-Capacity Reporting Tool work?

SCRT will process the following data:
- In the z/OS environment: System Management Facilities (SMF) data, specifically SMF type 70, subtype 1 (CPU Activity) records and SMF type 89, subtypes 1 and 2 (Product Use) records
- In the z/TPF and z/VSE environments: SCRT89 records

For a Sub-Capacity Report for a particular z Systems machine to be considered valid for software billing purposes, the data must include an entire reporting period of SMF or SCRT89 records for all the z/OS, z/TPF, and z/VSE images on a given z Systems machine, from both native LPARs and guests of z/VM.

SCRT can produce a number of different reports (collectively referred to as "sub-capacity reports"), including reports for Country Multiplex Pricing and Tailored Fit Enterprise Consumption. Refer to your contracts or other agreements with IBM to determine the report type and options you should choose when generating your reports.

For traditional workloads based on peak rolling four hour average utilization, SCRT will use the data to create a report that indicates the required license capacity in MSUs for all eligible MLC or IPLA execution based products running in the environment. For other offerings, such as Tailored Fit Pricing solutions, the report will contain appropriate metrics such as required container capacity or MSU consumption.

Reports produced by SCRT are in comma separated value format and can be viewed in a standard text editor or imported into a spreadsheet for convenience.

Is there a charge for using the Sub-Capacity Reporting Tool?

There are no charges associated with download and/or use of the Sub-Capacity Reporting Tool.

Is the Sub-Capacity Reporting Tool supported?

SCRT is a supported tool. Obtaining help for the SCRT tool itself follows the standard IBM Service Request (SR) process:
https://www.ibm.com/service

For problems with LMS or IBM pricing in general, refer to the IBM Z Software Pricing Help site:
https://www.ibm.com/it-infrastructure/z/software/pricing-help

Do I have to manually update my Sub-Capacity Report?

Under certain circumstances a "(required)" comment placeholder may appear in your Sub-Capacity Report, such as when there is less than the required amount of data submitted. If a "(required)" comment placeholder appears you must replace it with an explanation. You may do this by editing the Sub-Capacity Report prior to submitting it to IBM, or you may choose to fill in the required comment on the appropriate LMS website panel.

When updating your report, take care not to edit or change any fields other than those with a "(required)" placeholder. Unintended changes may result in your report being rejected by IBM.

IBM strongly recommends that you always review your Sub-Capacity Report(s) before submitting them to IBM.

Which products are Sub-Capacity eligible? Which products do/do not have SMF89 records?

See the [z Systems Software Contracts exhibits website](https://www.ibm.com/it-infrastructure/z/software/pricing-resources) for product-level information:
https://www.ibm.com/it-infrastructure/z/software/pricing-resources

Sub-Capacity Reporting Tool Recommended Maintenance

For optimal data collection and reporting in a z/OS sub-capacity environment:

IBM recommends that you apply PTFs associated with fix category
IBM.Function.Pricing.Infrastructure. You may also need to apply product specific PTFs for individual sub-capacity products to ensure correct reporting.

If you are using CMF from BMC software instead of RMF to generate SMF70 records, contact
[BMC Support](#) to ensure the correct CMF level/service.

For optimal data collection and reporting in a z/VSE sub-capacity environment:

IBM recommends that you apply PTFs for the following APARs:
- **z/VSE V4.1**
  - APAR DY47027 – to enable measurements less than 1 MSU
  - APAR DY47152 – to enable support for processing CMT data files using IJBCMTRP that exceed 32767 tracks on ECKD disks
  - APAR DY47110 – required to be installed prior to data collection to enable CMT support on z13 (2964), z13s (2965), zEC12 (2827), zBC12 (2828), z196 (2817) and z114 (2818) machines
  - APAR DY47196 – to enable extraction of SCRT89 records with DATE or TIME offsets using IJBCMTRP
- **z/VSE V4.2**
  - APAR DY47029 – to enable measurements less than 1 MSU
  - APAR DY47152 – to enable support for processing CMT data files using IJBCMTRP that exceed 32767 tracks on ECKD disks
  - APAR DY47111 – required to be installed prior to data collection to enable CMT support on z13 (2964), z13s (2965), zEC12 (2827), zBC12 (2828), z196 (2817) and z114 (2818) machines
  - APAR DY47194 – to enable extraction of SCRT89 records with DATE or TIME offsets using IJBCMTRP
- **z/VSE V4.3**
  - APAR DY47197 – to enable extraction of SCRT89 records with DATE or TIME offsets using IJBCMTRP
- **z/VSE V5.1**
  - APAR DY47645 - to enable the extraction of SCRT89 records of the current month using the option MONTH = CURRENT of IJBCMTRP
- **z/VSE V5.2**

- APAR DY47646 - to enable the extraction of SCRT89 records of the current month using the option MONTH = CURRENT of IJBCMTRP
- **z/VSE V6.1**
  - APAR DY47647 - to enable the extraction of SCRT89 records of the current month using the option MONTH = CURRENT of IJBCMTRP

For optimal data collection and reporting in a z/TPF sub-capacity environment:

Check the [z/TPF Maintenance page](https://www.ibm.com/software/htp/tpf/maint/maintztpf.html) for any required service:
https://www.ibm.com/software/htp/tpf/maint/maintztpf.html

On that page, select the "XLS" link in the "APAR Data" row of the table, this should launch a spreadsheet. Within the spreadsheet file you may select the "SCRT_APARs" worksheet tab to see the z/TPF APARs which are unique to the sub-capacity environment.

For all IBM Z environments:

IBM always recommends that you install the most current microcode driver level available. The following microcode patches are available to fix specific problems which affect software pricing, but please be aware that more current microcode levels may be available. Please contact your IBM service representative to coordinate installation of any microcode.
- Update the z990 software pricing MSUs; to allow z/OS WLM to measure rolling 4-hour average in terms of the new z990 software pricing MSUs.
  - Driver 52 - - MCL 058 in the EC Stream J12560
- Correct occasional minor discrepancies between expected and reported capacity in configurations that include ICFs or IFLs.
  - Driver 38 - - MCL 067 in the EC Stream J10003
  - Driver 3C - - MCL 025 in the EC Stream J10637
  - Driver 3G - - fix included in 3G
- Enhance the call home function of your zSeries server.
  - Driver 38 - - MCL 085 in the EC Stream J10005
  - Driver 3C - - MCL 097 in the EC Stream J10638
  - Driver 3G - - MCL 060 in the EC Stream J11213

Submitting SCRT Reports to IBM

To obtain sub-capacity pricing for your eligible z Systems software products, you must officially submit your reports to IBM each month.

All customers in countries where the License Management Support (LMS) application has been implemented must use LMS to submit SCRT reports to IBM. You may choose either of the following methods to send your SCRT report to LMS:
- **LMS Web** to upload and submit your reports using the LMS Web interface.
- **LMS eMail** to send your reports to LMS as an e-mail attachment. Please note that Multiplex Reports may only be submitted via LMS Web, Multiplex Reports may not be submitted via LMS eMail.

In countries or regions where LMS has not yet been implemented customers may continue to use their current submission process until notified by IBM that they must migrate to LMS.

Refer to the SCRT User's Guide for information on getting access to the LMS application and submitting your reports.