

Tackling Increasing SMF Data Volumes and Decreasing Resources in the Mainframe Environment

Denise Kalm

MAINFRAME PRODUCT MARKETING

Table of Contents

Executive Summary

SECTION 1: CHALLENGE 2

Focusing on and Delivering True IT Service

Supporting Service Management on the Mainframe

SECTION 2: OPPORTUNITY 3

Ready Access to Complete, Accurate Mainframe Resource Utilization Information

Real Choice in Your Mainframe Enterprise Systems Management Software

SECTION 3: BENEFITS 5

Improving Your Mainframe Financial and Service Level Management

SECTION 4: CONCLUSIONS 5

SECTION 5: ABOUT THE AUTHOR 5

Executive Summary

Challenge

Increasing infrastructure complexity has led to unprecedented growth in enterprise systems management data on all systems, including the mainframe. But unless it can be rapidly and automatically transformed into comprehensive, actionable information regarding system utilization and performance, it remains just raw data that provides no insight to IT or its customers. Complicating the situation is the fact that the data needs to be drawn from many platforms, in many locations and across many time zones, which is why few enterprises have found ways to streamline or automate the process and its associated tasks. In fact, it is not uncommon for them to do multiple reads of their unrefined SMF data — which is as time consuming as it is prone to error and resource intensive. And to top it off, the mainframe workforce continues to age at a clip that is reaching crisis levels around the world.

Opportunity

With automated, cross-platform data collection and error detection and resolution and the ability to quickly make available complete and accurate data, you can minimize your need for manual intervention in SMF data processing to the point that you actually increase your overall IT efficiency. As such, you can reduce your overhead and operational costs while:

- Enhancing the integrity and timeliness of your resource utilization data
- Maximizing the value of that data by integrating information from different z/OS processors, geographies and time zones
- Improving the timeliness and accuracy of associated business decisions, including those for the acquisition of additional system resources
- Monitoring costs and resource utilization statistics to improve data reliability and reduce processing overhead

Benefits

The CA Mainframe Resource Management Suite helps fulfill the intricate information needs of today's enterprise IT infrastructure management environments, helping your IT professionals harness SMF metrics to make timely, knowledgeable decisions about costs, storage, capacity planning and system performance. Moreover, it empowers you to better control and understand your mainframe systems and supporting technologies, which translates to improved IT costing, system utilization and performance and planning.

Focusing on and Delivering True IT Service

The role of the IT organization in today's business world — and the infrastructure it commands — is changing dramatically. This is why IT is becoming more integral to business profitability and is under pressure to align closely with enterprise demands. Because of this heightened recognition of the value technology brings to the business, there is an increased focus on service:

1. Establishing service levels
2. Measuring against those service goals and requirements
3. Uncovering the root cause of service delivery problems

As such, there's more intense scrutiny on the costs and returns associated with service delivery, and IT shops are embracing SLAs and the Information Technology Infrastructure Library (ITIL) standard to create realistic metrics and pricing in order to effectively manage the associated financial aspects of resource utilization. From the fiscal perspective, key activities include budgeting, IT accounting and cost allocation to business units and departments. From the technology perspective, organizations look to management and analysis tools to ensure that acceptable levels of performance are being delivered (or why they are not.)

With this critical information, IT can:

- Communicate its true value to the overall organization with concrete measurements
- Conduct proactive capacity planning to ensure resources are in place to support new and growing workloads
- Demonstrate that service level commitments are being met
- Help set realistic service level agreements based on historical delivery information

Of course, as this approach and the depth and breadth of its residual information becomes commonplace, both IT and the business begin to view it as the norm and will begin to require it throughout the infrastructure, including mainframe systems and their supporting technologies.

Supporting Service Management on the Mainframe

The mainframe is enjoying somewhat of a rebirth, because enterprises continue to look for the reliability and performance synonymous with these systems to support their business-critical applications. But, the resultant resource utilization data must be rapidly and automatically transformed into actionable information if it is going to serve IT or its business customers in a meaningful way.

Further complicating the situation is the fact that the raw data needs to be aggregated from many mainframe systems, and often from many locations and across many time zones, if it is going to add real value. This aggregation process delays the availability of the data, and also tends to result in creating “just another huge database”, making access time- and resource-consuming, as well as difficult. And, with only the large database to pool, mainframe administrators spend an inordinate amount of time performing multiple reads of their base SMF data — a process that is resource-intensive, complex and prone to error.

Increasing infrastructure complexity has led to unprecedented growth in mainframe enterprise systems management data. But unless that data can be transformed quickly and automatically into actionable information, it remains just that — raw data.

To make matters worse, the rich human capital required to execute these and other essential mainframe performance management tasks is retiring in record numbers. And while there has been a recent resurgence in mainframe education programs and students, the demand for qualified candidates far exceeds the supply.

SECTION 2: OPPORTUNITY

Ready Access to Complete, Accurate Mainframe Resource Utilization Information

IT executives and their business unit counterparts require ready access to accurate and complete enterprise management information for their mainframe systems. And, CA offers an unparalleled integrated solution that gives them what they require — faster, cheaper and better than they ever dreamed possible.

Real Choice in Your Mainframe Enterprise Systems Management Software

CA MICS® Resource Management (CA MICS) with CA SMF Director and CA JARS® Resource Accounting (CA JARS RA) with CA SMF Director are fully integrated resource management solutions that offer the utmost in data integrity, availability, access, archiving and reliability — and provide real choice in your enterprise systems management offerings.

CA MICS® RESOURCE MANAGEMENT WITH CA SMF DIRECTOR

With support for the z/OS, VMS, VSE and VM platforms, CA MICS Resource Management captures and organizes your IT resource utilization data from varied sources, including database, messaging and networking subsystems, and maintains that data in a common repository. And, it enables you to comprehensively analyze delivery costs, service levels and acceptable performance levels with its advanced data querying and web reporting facilities. In other words, CA MICS Resource Management simplifies access to the data you need, whether you are a capacity planner, performance analyst, financial analyst or other stakeholder. In this way, CA MICS Resource Management helps you ensure the proper planning of computing resources — which assists in controlling costs and improving service levels.

CA JARS® RESOURCE ACCOUNTING

Supporting the z/OS operating system, CA JARS RA tracks how your IT resources are being used and includes a flexible reporting feature that provides accurate utilization data for accounting and chargeback purposes, as well as to prevent or resolve capacity and performance problems. It can help you manage IT utilization data — and *with* a small footprint and low administrative overhead. Moreover, CA JARS RA features flexible user-defined report options, versatile rate definition for all requirements and easy exits for input and output manipulation of site requirements.

CA SMF DIRECTOR

Today's mainframe systems process hundreds of millions of business transactions daily. CA SMF Director effectively manages the massive volume of SMF data generated by these transactions by automatically archiving, cataloging it and simultaneously dumping it from multiple systems — and providing on-demand data access.

The two combined solutions provide unprecedented:

DATA AVAILABILITY At dump time, CA SMF Director can simultaneously create, split files that can be used specifically with CA JARS RA or CA MICS. The files can contain the data that is unique to your CA JARS RA/CA MICS implementations, such as CICS, DB2 and batch, or data that is specific to another CA application — giving you easy and ready access to the data you need.

DATA INTEGRITY Performance data is only useful if you can be sure that it is complete, accurate and free of duplication. But with data coming from multiple systems and across multiple geographies, that can be difficult to do without resorting to manual tasks that are very cumbersome and prone to error. CA SMF Director automates this process.

DATA ACCESS Without CA SMF Director, it is common to run jobs against raw SMF files whenever ad-hoc requests come in, which is costly in terms of time and effort. With CA SMF Director, however, you have easy, error-free and low-overhead access to on-demand system data. In other words, you don't need to know the location of the applicable archive tape or sort through thousands of records just to find a few hundred.

DATA ARCHIVING The sheer volume of performance data you need to process makes it essential to improve efficiencies. To that aim, CA SMF Director helps you achieve maximum throughput by allowing you to dump multiple MAN files from multiple LPARs. And, you can configure CA JARS RA or CA MICS to bring the data into its relevant database as soon as the split files complete.

DATA RELIABILITY Complex environments often include legacy in-house processes for handling SMF data, which were created when the systems were smaller and simpler. But using a standard, automated process to manage your usage data reduces risk and costs while increasing your data reliability. Moreover, as you migrate to System Logger for SMF data management, SMF Director allows you to enjoy the benefits Log Streams while eliminating the potential for duplicate data during the archive process. This automatically detects by log stream, not only the exact time, but also the exact record that was last dumped without requiring substantial change to the automated process.

CA MICS with CA SMF Director and CA JARS RA with CA SMF Director are fully integrated resource management solutions that provide the utmost in data integrity, availability, access, archiving and reliability.

SECTION 3: **BENEFITS**

Improving Your Mainframe Financial and Service Level Management

With automated SMF data collection, archiving, error detection and resolution and the ability to transform that data into aggregated information that is available, complete and accurate, the CA Mainframe Resource Management Suite can help you minimize your need for human involvement in your mainframe utilization measurement and analysis activities. As such, you can reduce your IT overhead costs while increasing the efficiency of your mainframe operations. Moreover, you can:

- Enhance the reliability and validity of your resource utilization data
- Maximize the value of that data by integrating information from different processors, geographies and time zones
- Improve the timeliness and accuracy of associated business decisions, including those regarding procurement of additional system resources
- Track and allocate costs against service and usage statistics
- Quickly capture and compare metrics and trends for response times, resource utilization and capacity alerts

By delivering the comprehensive and detailed resource information IT and its customers have come to expect, the CA Mainframe Resource Management Suite addresses the complex information needs of today's enterprise IT infrastructure management environments. Most importantly, it helps your IT professionals harness SMF metrics to make informed, cost-effective decisions about costs, storage, capacity and performance. In this way, the CA Mainframe Resource Management Suite allows you to better control and understand your mainframe systems and supporting technologies for improved financial and service level management.

SECTION 4: **CONCLUSIONS**

The CA Mainframe Resource Management Suite delivers accurate information for effective IT fiscal and capacity planning and system performance tuning. It also automates the collection, archiving and delivery of SMF metrics from multiple systems across an enterprise. As such, it helps you quickly facilitate service level improvements and minimize the drain on your dwindling human resources.

SECTION 5

About the Author

Denise Kalm
Mainframe Product Marketing

A Product Marketing Director at CA, Denise Kalm has 30 years experience in IT. That experience includes application programming, enterprise systems management and performance management/capacity planning at Pacific Telephone and Bank of America. Prior to joining CA, Denise spent over five years at an enterprise management solutions software company focusing on Enterprise Performance Assurance. She is also a regional officer of the Computer Measurement Group (CMG), has held many volunteer positions within that organization and is a frequent contributing author to its publications.

To learn more about the CA Mainframe Resource Management architecture and technical approach, visit ca.com/mainframe/resourcemanagement.

CA (NSD: CA), one of the world's leading independent, enterprise management software companies, unifies and simplifies complex information technology (IT) management across the enterprise for greater business results. With our Enterprise IT Management vision, solutions and expertise, we help customers effectively govern, manage and secure IT.

MPXXXXX

Learn more about how CA can help you transform your business at [ca.com](https://www.ca.com)

