CA OPS/MVS® Event Management and Automation (CA OPS/MVS EMA) helps you maintain optimal performance and availability of vital business applications by managing the resources in your diverse mainframe environment.

Overview

z/OS, its subsystems, databases, middleware, applications, and software generate thousands of event messages daily. IT professionals need a tool to filter, prioritize, and respond quickly to these events before they impact availability and threaten business processing and associated service level agreements. CA OPS/MVS EMA automates processes, enabling you to resolve problems as they arise. It also automates more routine tasks, simplifying IT management and operations.

Business value

CA OPS/MVS EMA helps you lower total cost of ownership (TCO) by improving system resource and user efficiency through automation. It manages the availability of critical z/OS resources and maintains the optimal conditions of your mainframe systems by managing daily operations according to defined business policies, replacing the need to manually react to console messages and write to operator messages. By automating complex user-specified conditions, automation staff can shift their focus to creating new code that meets the requirements of the business.
Features

CA OPS/MVS EMA has adopted key features that are designed to simplify your use and administration of CA OPS/MVS EMA and enable your staff to maintain it more effectively and quickly.

- **CA Mainframe Software Manager™**: CA Mainframe Software Manager (CA MSM) is designed to automate CA OPS/MVS EMA acquisition, installation, deployment, configuration and maintenance and remove SMP/E complexities. CA MSM helps save time and resources when compared with the manual steps used to perform these tasks.
  - The **Software Acquisition Service** is designed to help you to more easily move product installation packages and maintenance from CA Support Online directly to your mainframe environment and prepare them for installation.
  - The **Software Installation Service** standardizes CA OPS/MVS EMA installation, which includes a new, streamlined Electronic Software Delivery (ESD) method that allows CA OPS/MVS EMA to be installed using standard utilities. This service also provides standardized SMP/E product installation and maintenance via APARs and PTFs, and simplifies SMP/E processing through an intuitive graphical user interface and an intelligent Installation Wizard.
  - The **Software Deployment Service** enables you to more easily deploy CA OPS/MVS EMA in your mainframe environment.
  - The **Software Configuration Service** enables you to more effectively configure CA OPS/MVS EMA if it has been acquired, installed, maintained and deployed using CA MSM.

- **Installation Verification Program (IVP) and Execution Verification Program (EVP)**: As part of qualification for inclusion in the set of CA mainframe products released every May, CA OPS/MVS EMA has passed stringent tests performed through the IVP and EVP to find and resolve interoperability problems prior to release. These programs are an extension of our ongoing interoperability certification initiative launched in May 2009.

- **Best Practices Guide**: This Guide provides information on CA OPS/MVS EMA installation, initial configuration and deployment to help shorten the learning curve for staff who are responsible for the installation and management of this product.

- **Health Checker**: The Health Checker provides CA OPS/MVS EMA Health Checks that execute under the IBM Health Checker for z/OS.
Serviceability: In order to provide additional levels of information and consistency for problem determination, CA OPS/MVS EMA has adopted the following serviceability enhancements:

- **Product description information:** CA OPS/MVS EMA provides a Product Description module that contains the product name, version/release number and other useful information. To determine which CA Technologies products are installed within each z/OS environment, you can access and report on this module using the CA Common Services EXAMINE facility.

- **Module identification:** Each object deck comprising CA OPS/MVS EMA contains a copyright and module identifier to assist with error analysis and debugging.

- **Common dump title formatting:** When applicable, CA OPS/MVS EMA recovery routines use standard formatting of dump titles to assist with problem identification.

- **Integration with CA OPS/MVS® Event Management and Automation System State Manager:** CA OPS/MVS EMA integrates directly with CA OPS/MVS to indicate programmatically its state and readiness in your environment.

What’s new in CA OPS/MVS Event Management and Automation r12.0

- **CA Mainframe Connector for Linux on System z:** This new functionality provides cross-platform integration of command and event flows from Linux on System z and z/VM environments. CA Mainframe Connector enables visibility and control of the Linux on System z environment from CA OPS/MVS EMA.

- **External Security:** The CA OPS/MVS EMA External Security feature will enable you to manage OPS/MVS EMA resources by simply defining a set of resources to any product that supports the SAF interface and setting an OPS/MVS EMA parameter to enable external security controls.

- **MLWTO (Multi-Line Write to Operator):** This enhancement will allow you to see all the lines of the MLWTO prior to processing the message.

- **Enhanced SSMGA Usability**
  - If user columns have been defined for RDF tables, the columns will be available in the resource editor main panel.
  - Commands entered in the ISPF panels can now be validated via new User Exits. User commands can now also be implanted using the new User Exits (not sure which IPSF panels are affected).
**Automation Applications:** New automation applications introduced.

- Utilizing r11.9 enhancement to the OPS/REXX OPSLOG() function
- Using SSM to monitor and control batch jobs and group relationships
- Determine if a batch job’s elapsed time is exceeding defined initiator run times
- Processing average MSU usage threshold alerts sending emails to a predefined list
- A means to forward CA Workload Automation EE job monitoring data to CA OPS/MVS EMA for further automated processing
- Storing output of the DB2 for z/OS DIS DB(dbname) command in a sequential data set
- Invoking the DB2 for z/OS DIS THREAD(*) command, and processing its output—canceling any thread with a non-zero token count
- Enabling automation to issue a z/OS DUMP command for an active asid, replying with desired DUMP command options
- Extracting the dump ID, jobname and dump title of the IEA794I event, then invoking a user program if a specific abend (such as S4C5 in TCPIP) has occurred
- Identifying quiesced zFS aggregate files by utilizing the zfsadmin USS command

**Key features**

Today’s dynamic z/OS environment produces literally thousands of event messages every day, some critical and some merely noise. To ensure that the red-flag messages—those that can impact service level agreements, business processing, and performance of system resources—receive priority status and quick resolution requires an advanced automation and management tool that is available on demand, 24x7.

CA OPS/MVS EMA helps you spot those red-flag messages quickly and easily. You can automate routine and complex tasks messages, commands, policies, and procedures—and implement an automated business recovery solution. CA OPS/MVS EMA intercepts console and USS messages, as well as those from job- and performance-related events, elevating those issues that can impact continuous business processing. Should the worst occur, you can provide for ongoing business processing with the automated disaster recovery hot-site restart process.

CA OPS/MVS EMA is very flexible. It allows you to deploy automation scripts using panel-driven automation, which simplifies code deployment and implementation. You can also integrate CA OPS/MVS EMA with many products from CA Technologies and other vendors. CA OPS/MVS EMA contains powerful capabilities to enhance your organization’s ongoing business processing. These capabilities include synchronous automation, comprehensive cross-system state management, Multi-System Facility (MSF) to enable centralized automation, a relational data
framework with powerful retrieval capabilities, and the ability to perform simple queries through an audit trail. Such capabilities make CA OPS/MVS EMA one of the best mainframe automation products on the market today.

**Key capabilities**

- **Synchronous automation:** Synchronous automation takes automated action when an event occurs, not after the fact, enabling you to maintain acceptable levels of performance and the capability to better meet service level agreements. Most automation solutions react to messages once they appear on the console. By that time, the complexity of your environment has changed, as precious seconds have passed. CA OPS/MVS EMA is designed to intercept the message at the time it is created and react immediately. It accomplishes this through a rules engine that detects, evaluates, and responds to a wide range of system activities as they are processed at the z/OS subsystem interface. When the system is under stress from multiple concurrent events, the multithreaded architecture enables CA OPS/MVS EMA to respond reliably to each event. You can also handle tasks requiring an asynchronous response with a script or a REXX program through OSF server, which can reduce event-processing bottlenecks.

  Another element in synchronous automation is OPS/REXX, a synchronous language that, when used in conjunction with precompiled rules, helps you eliminate overhead involved in reading and interpreting from a library. You can use EasyRule, a simplified automation code generator, to quickly create automation rules via a fill-in-the-blank ISPF panel. No programming or previous REXX knowledge is required. Synchronous automation provides a group of environmental variables for each rule type, and user-definable variables to store data across system restarts. OPS/REXX includes an extensive library of special functions that enable you to detect address space and device availability, and collect information on JES2, Sysplex, and system resources.

- **Global application system state management:** Verify that critical resources move from under-utilized systems to resource-constrained systems with global system state management. Global system state management compares the current state of a device or resource to a desired state, and takes proactive steps to align the resource with the desired state across systems. A schedule manager defines the desired state by date, day of the week, or time of the day and an override feature temporarily suspends the schedule for managed resources. With global system state management, you gain an unparalleled depth of coverage for system and subsystem resources and a centralized, globally enabled cross-system management solution.
• **CA OPS/MVS EMA Multi-System Facility (MSF):** If you have multi-CPU or multi-site environments, you can use CA OPS/MVS EMA MSF for peer-to-peer communication between two or more CA OPS/MVS EMA subsystems, which is critical for business continuity planning. CA OPS/MVS EMA MSF detects system failures and starts systems, subsystems, and software at the secondary or tertiary sites in an efficient manner. CA OPS/MVS EMA provides the automation tools to enable the complex policies required for business continuity or disaster recovery.

• **Relational data framework:** The relational data framework enables IT to define relationships between disparate data sources and simplifies the management of enterprise and system information. You can manage correlated events with this high-speed, synchronous, Structured Query Language based framework because it stores any variable or data element in a data structure that can be correlated against other data elements.

• **OPSLOG automated audit trail:** System events, including messages, reside in OPSLOG. You can use OPSLOG to quickly research and resolve questions related to past events, analyze specific events, or spot trends or patterns that further enhance existing automation. A rapid browse facility enables IT to filter, search, archive, display, and print log data quickly and easily. OPSLOG data can be accessed and viewed via a Web browser. Users can customize views to focus on the data of most interest to them.

**Additional key features**

• **Automation analyzer:** Indicates where the data center would most benefit from automation.

• **Comprehensive Sysplex support:** Manages events from your Sysplex facilities and Sysplex specific resources in order to maintain high availability.

• **Operations facilities:** Enables CA OPS/MVS EMA to receive messages from CICS regions or IMS control regions and manage specific resources within those environments in order to maintain high availability.

• **Expert systems interface:** Provides systems and application programmer access to selected CA OPS/MVS EMA facilities from an application written in either a high-level or assembler language.

• **Support for UNIX System Services (USS):** Manages USS and traditional MVS workloads and helps maintain high availability.
Delivery approach

CA Services provides a portfolio of mainframe services delivered through CA Technologies internal staff and a network of established partners chosen to help you achieve a successful deployment and get the desired business results as quickly as possible. Our standard service offerings are designed to speed deployment and accelerate the learning curve for your staff. CA Technologies field-proven mainframe best practices and training help you lower risk, improve use/ adoption and ultimately align the product configuration to your business requirements.

Benefits

CA OPS/MVS EMA helps to improve availability in the z/OS environment, maintain business processing, align IT with business needs, manage IT costs, and deliver operational efficiencies. Because CA OPS/MVS EMA is designed to identify and solve problems as they occur, you can limit or eliminate the impact that an event can have on your z/OS environment. This helps align IT with business goals by enhancing availability. Early event resolution also helps manage the costs associated with downtime.

By automating routine and complex tasks, you gain operational efficiencies and reduce total cost of ownership (TCO). IT staff can let CA OPS/MVS EMA perform the tedious tasks, while they focus on issues that require human intervention or tomorrow’s automation opportunities. CA OPS/MVS EMA centralizes and simplifies resource management and enterprise system information management, helping you optimize the resources in your mainframe environment.

The CA Technologies advantage

CA Technologies has 35 years of recognized expertise in robust, reliable, scalable, and secure enterprise-class IT management software. CA OPS/MVS EMA is a key component of the CA Technologies initiative to change the way the mainframe is managed forever by helping you maximize the value of CA Technologies mainframe products and by providing a simplified experience and innovative solutions that deliver value quickly and flexibly.