

EOS 360

The new generation of EOS

Enabling Mainframe operations efficiency



During the past 4 decades, RSD has always been committed to delivering solutions that integrate the best-of-breed technologies. While IBM continues to improve its Z family with the availability of z13 and LinuxOne, it is our ambition to continue to improve our solutions for the benefit of our customers.

RSD is pleased to provide our customers with the following update on EOS Roadmap, RSD EOS 360 “the Next Generation of Enterprise Output Solutions.” You will find in these pages an overview of the new features and major updates that EOS 360 provides.

EOS 360: A new product from 40 years of experience

EOS has been the flagship name of our RSD offering, strongly recognized among our customers. Based on extensive customer feedback analysis integrating key market dynamics, RSD has worked to develop new major features and expand its existing set.

After 2 years of R&D efforts, RSD is pleased to announce EOS 360. EOS 360 is a new offering extending beyond the EOS engine with a consistent suite of integrated modules and an exciting future roadmap.

EOS 360 has been built to: 1) reduce the cost of utilization; 2) increase high availability and performance; and 3) facilitate administration tasks for not only the IT administrators but also for less-skilled end-users. While IT Administrators will get new benefits from EOS 360, it will also enhance the product for our customers' business units. This improves their access to EOS reports and information with a stronger than ever integration to end-user tools such as email, browsers and collaborative exchanges.

EOS 360 is composed of 5 modules



Each EOS module has its own scope of functionalities described below. In **blue**, you will find all major enhancements or new modules from previous EOS versions. Migration from EOS 2.x is a smooth process and doesn't require a costly database migration.

EOS Server

- EOS Engine: Regroups the core features of EOS (EVT, form Index Management, EOS Utilities. . .)
- **EOS AREP: Archival and Restore facility of EOS**
- EOS Ext ISPF Support: Access to EOS from ISPF
- EOS Ext CICS Support: Access to EOS from CICS
- EOS Print Server: All print facilities of EOS, including Doc2PrintServer

EOS Process

- **EOS Writer to capture Job Logs and Line reports from JES Spool**
- EOS FSS: Functional Sub System to capture reports via a JES Printer
- EOS TCT: TCP IP Capture Tool to capture reports via LP protocol
- EOS VCT: VTAM Capture Tool to capture reports sent by VTAM application (i.e. CICS)
- EOS BCT: Batch Capture Tool to capture reports from files
- EOS ESS: Extended SubSystem to allow any z/OS application to write directly to the EOS SPOOL
- AFP and PDF Capture Support and EOS AFP and PDF Analyzers

EOS Access v1.0

- **EOS ACCESS Web v1.0.xx: HTML 5 responsive web application**
- **EOS ACCESS Mobile v1.0.xx: HTML 5 mobile application in a Cordova container**
- **EOS ACCESS Web Services v1.0.xx**
- **EOS ACCESS Outlook v1.0.xx**
- EOS Thin Client e.9.3: J2EE application (Servlet, JSP, HTML)
- EOS PC1.2k: (Maintenance mode Only) Windows fat client
- EOS 327x: Access to EVT through green screen
- EOS SPOOL Manager 1.0: Spool Management functionality through a Flash Interface

EOS Protect

- **EOS Profile Management**
- EOS Security with High Level Encryption and masking

EOS Cockpit

- Audit Trail in JSON format
- Samples of Dashboards: Samples settings of ELK to ingest, index and present Activity and Statistics dashboards

EOS Access: New User Interfaces

EOS Access reinvents your way of accessing your reports!

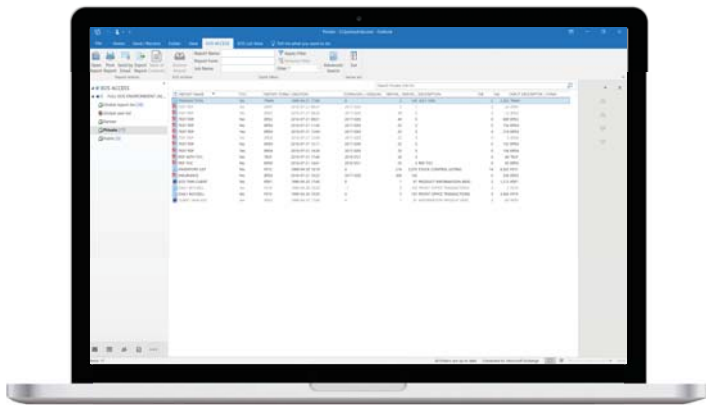
EOS Access innovation includes:

- 1) An easy access to EOS reports through a Microsoft Outlook plug-in
- 2) An integration with existing web application environments via REST Web Services
- 3) A secured access to reports from anywhere through a modern interface based on Google's Angular 2 framework

Outlook integration

To improve end-users' daily work without having to learn how to access and connect to EOS, RSD has developed an Outlook Add-in to view reports directly from the standard email interface of Microsoft Outlook. All EOS reports to which end-users have access will be accessible through a new tab in Outlook client, similar to the Email, Calendar, Task tabs.

Features that are available from this interface:



- Reports lists: private and groups
- Filtered lists
- Report viewing: for Line mode, AFP, PDF and all other formats. Searching within reports
- Report printing on local printer
- Report export
- Restoring of reports

Benefits:

- Eliminate training of end-users on a new interface
- Improve end-user access to information & reports

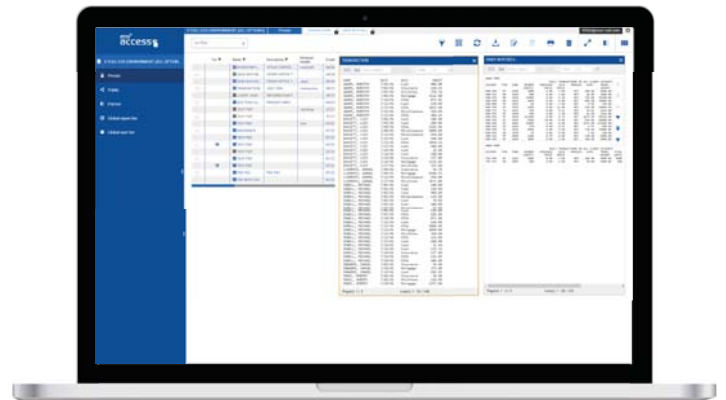
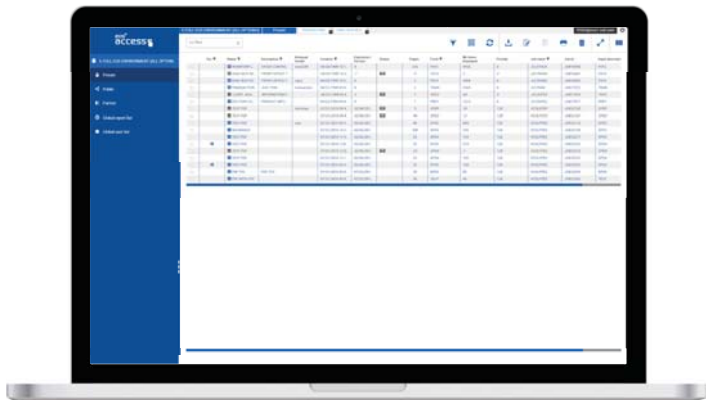
New HTML5 Client

This totally new HTML5 client integrates the latest web technologies and can be used in stand-alone mode or embedded into any other Portal or Web site. Leveraging features from the existing EOS Thin Client tool, this new client will improve the user-experience through a modern design. For example, the interface will include panes which allow the end user to have multiple reports opened at the same time with easy switching between reports, rather than closing/opening reports.

The interface is also compatible with portable and mobile devices, such as tablets and smartphones.

Benefits:

- An improved user experience
- A more secured interface accessible from any browser or portable device



EOS Access: New Admin Interface

Web interface in HTML5

Currently, all administration tasks in EOS are performed through 327x terminals or EOS batch utilities. However, some of these tasks may be carried out by administrators with limited skills on 327x terminals. EOS 360 introduces a new comprehensive web interface for administrators. This allows for administration tasks to be performed by dedicated business unit users in company departments for the management of users, groups and report definitions, enabling de-centralized EOS administration. Access can be restricted to users within their own groups or relevant FORMs (report definition).

User management (EOS profile) will be the first module integrated into the web admin interface for:

- Managing users
- Managing authorizations
- Managing user groups
- Managing FORM groups

Report Definition (FORM index) will be the next module for:

- Managing FORMs

Benefits:

- Tasks such as user management or report management would benefit from being performed on a web interface to gain wider acceptance in the user community thus releasing IT Admin from non-technical work

New Middleware: Introducing EOS Web Services

EOS Web Services is a middleware component which will provide a simple REST Web Service interface to EOS. Currently, most development environments include a framework to build applications with easy Web Service connectivity. This new component allows for an easy integration of EOS reports within any application. Security will be handled on the EOS server side ensuring that only authorized users have access to the reports.

EOS Cockpit: Monitor the activity



EOS Cockpit is the perfect way to analyze and monitor the activity of users.

Based on different levels of criteria, EOS Cockpit compiles and analyzes reports usage and user activity, identifying trends to assist the admin team and business user managers with making important decisions.

Benefits:

- Provide insight into EOS activity
- Identify negative trends
- Identify high and low usage of EOS
- Integrate easier into BI tools thanks to an SMF to JSON format conversion

EOS Server: Major Enhancements and Performance Improvements

Archive Master Index (AMI): Improved performance for end-user facilitating admin daily tasks

As EOS installations grow and archive reports for longer periods, the current structure of the AMI is reaching its limit in terms of performance. As a result, some large customers may be experiencing delays when searching for archived report via the AMI. RSD has made a significant investment in redesigning the AMI, changing its structure to VSAM KSDS. This effort has produced the following enhancements:

- Usage of standard tools like IDCAMS to perform AMI management tasks (initialization, unload/reload, backups. . .)
- Realization of the benefits from all the features of VSAM KSDS including size, location (EAV), and standard format due to this new AMI structure
- Auto-expansion of the AMI
- Improved search time within the AMI. Some searches that were taking several minutes may now be done in seconds
- Improved archive/restore batch jobs performance

In recent production environment tests, the performance improvements are really impressive:

Environment 1

About 1.3 Million archived reports, Converted to new AMI in 1 minute

Use Cases	Improvement
Range of Creation date + FORM	x5 to x60 faster
Jobname	x1.4 faster
Range of Archival date	x1.3 faster
Range of Expiration date	x1.3 faster
Range of Archival date + FORM	x1.5 faster
Range of Expiration date + FORM	x1.5 faster

Environment 2

About 2.9 Million archived reports, Converted to new AMI in less than 3 minutes

Use Cases	Improvement
Range of Creation date	x10 faster
Range of Creation date + FORM	x40 to 70 faster
Purge Master Index (Mode Simulate)	X2 faster

Benefits:

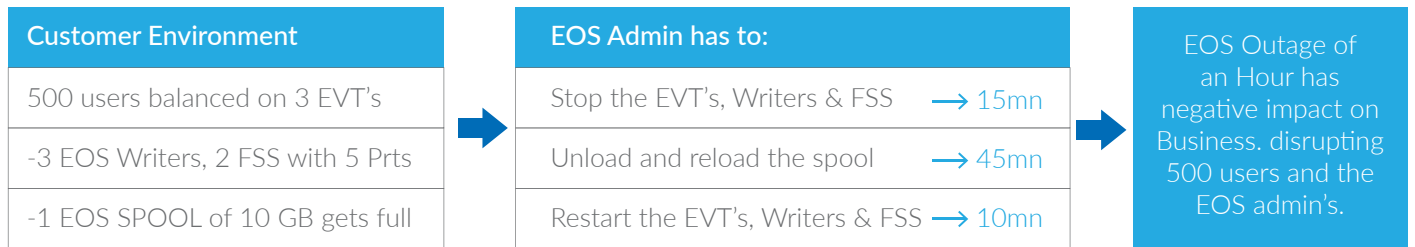
- Decreased time for EOS Administrators to find reports to restore
- Shorter delay for Business users to get their reports restored
- Improved Business Continuity since the new AMI is auto-expandable

Increase high availability and reduce downtime with automatic Spool "Xpand"

In each customer environment, EOS delivers critical information to business users. These reports need to be accessible at all times for decision-making purposes in today's highly competitive business environment. Any EOS outage is a cause of great concern for EOS users.

The use of a single EOS spool may require the administrator to closely monitor spool content to ensure it will not reach capacity. A spool full condition can stop capture tasks, leading to unexpected outages and restart procedures. During this period of time, EOS Users cannot access their reports which is unacceptable in most cases.

Let's take a concrete example:



With automatic EOS Spool Xpand, the capture tasks (writer, FSS, TCT, BCT and VCT) have the ability to:

- Manage a list of spools instead of just one. When one spool becomes full, capture processing will automatically switch to the next one in the list to find free space
- Automatically allocate a new spool based on predefined settings if no free space is found in the currently allocated spools list

This new feature, once configured, will assist administrators with management of the spools and will ensure the continuous capture of reports into EOS preventing unexpected outages.

Benefits of an Automatic Spool Expand:

- Increased high availability of EOS
- Reduced downtime
- Reduced risk of errors related to an EOS SPOOL recovery process



Ability to capture line mode report via FSS

In order to check when reports are available for capture, the EOS Writer polls the JES spool for any report meeting its selection criteria. If no reports are available, it becomes inactive for a predefined period of time. If reports become available during this period, it will wait until the next polling cycle.

This major improvement allows EOS to interface directly with JES for all types of reports, notifying EOS immediately when a report becomes available and allowing an EOS administrator to control selection criteria more efficiently through JES printer definitions. It will reduce the lag time between report capture caused by the polling timer. Overall, it will reduce the activity spent polling the JES spool and will accelerate the ingestion of new reports.

The Hybrid World with EOS

EOS 360 allows reports to move easily from EOS z/OS to EOS Open Systems.

In order to reduce your MIPS consumption, you can continue to capture reports via EOS on your Z environment and EOS Bridge will allow end-users to access them on an Open platform. This is what we call The Hybrid World with Bridge which resolves the following needs:

1. For customers migrating from z/OS to Open Systems, EOS 360 facilitates the transition between the two systems. During the transition phase, users can be connected to EOS Open while reports are still produced on the mainframe. When the mainframe is decommissioned, users connected to EOS Open will continue to access their reports on the EOS Open environment.
2. For customers that have high MIPS consumption during specific times of the day, such as mornings and just after lunch, accessing and viewing reports from EOS Open will dramatically help reduce peak activity and MIPS usage (Consumption).

An EOS 360 queue has been developed to automatically recover from errors if for any reason reports cannot be transferred to EOS Open Systems. This will guarantee the integrity of the report transfer process between systems and minimize the work of the administrator in case of problems.

A parameter to limit the viewing of reports on z/OS that are available on Open Systems can be activated to encourage users to work with reports on EOS Open Systems.

Benefits:

- Reduce the Four Hour Rolling Average Peak and MIPS consumption for better IT Budget control
- Increase availability and security for all reports captured and viewed
- Facilitate migration migration to Open Systems, if so desired

About RSD

Headquartered in Geneva, with offices in the US and Asia, RSD develops and sells enterprise-grade software solutions to help Fortune 2000 companies increase their IT efficiency. Built upon 40 years of expertise, innovation and the highest professionalism standards, RSD's offerings enable customers to optimize IT assets usage in an ever more challenging and hybrid world and reduce further their operating costs thanks to a flexible license model. RSD has built a strong and loyal customer base supporting millions of users worldwide and its offerings are available all around the globe-both directly and through business partners.

RSD designs software tools that increase IT Operations efficiency, immediately and for the long term.

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