



5 Reasons You Need an Enterprise Output Management Product

A ROC Software Whitepaper

An enterprise output management product should ensure the delivery of an application's output data stream to its intended destination, securely, while allowing users to confirm and control this delivery. Frequently overlooked, inadequately resourced output management strategies can be a significant and hidden burden on IT budgets. At the same time, government legislation requires increasing audit and security controls. ROC Rhapsody offers a solution that addresses all of these issues - native spoolers can't.

Misdirected and lost application output has a dual impact on companies and institutions. Printed, faxed or emailed invoices, purchase orders, checks, schedule notifications, contracts, among others, have inherent value; their loss impacts the value of the business exchanges they facilitate. Meanwhile, the IT expense of somehow accommodating the loss adds further cost – IDC estimates that 23% of internal IT helpdesk calls are print relatedⁱ.

ROC Rhapsody can be deployed to replace the basic output spoolers included with UNIX, Linux and Windows operating systems in order to:

- Simplify administration
- Reduce help desk calls
- Secure data and printed output
- Provide fault tolerance
- Output to fax, email, document repositories, Web and PDF as well as printers

Unfortunately, the approach many companies and institutions take to output is simply to let it happen rather than attempt to manage it. According to IDC research, most do not even know how many hardcopy devices are deployed in their enterprises and less than half track output costs across the companyⁱⁱ. ROC Rhapsody makes it easy to manage output, freeing up resources within an organization for even more important functions.

Simplified Administration

With Rhapsody, Administrators have a single point through which to manage all output delivery and destinations across the network. Accessed through a state-of-the-art Web interface, Rhapsody gives IT staff a clear picture of the health of the output queues and destinations, alerting them to problems as they occur. The Web interface allows them to hold or redirect jobs, and detach, move or modify destination configurations. Jobs can be scheduled by priority and by future print time. Activity logs provide information on successfully printed documents, or give information as to why the document didn't print.

The Destination Map and Servers pages of the Web application alert administrators to changes in the health of their output network within seconds of the issue arising. Automatically updated, these displays highlight problems and support rapid drill down to reach the relevant configuration details to make adjustments. When away from their desks, administrators can be notified of problem events by email to their pagers and cell phones.

Reduced Help Desk Calls

Internal support calls are naturally reduced when IT staff are alerted to downed device problems early and can react quickly, but the greatest impact on call counts may come from empowering users to solve many issues for themselves. The easy to use and

powerful Web interface enables output owners to locate, monitor and redirect their documents in the Rhapsody system.

Unlike traditional UNIX, Linux and Windows spoolers, Rhapsody allows users to both redirect output to alternative destinations and reprint all or part of documents that have already been rendered. Output can be configured globally, as part of the printer configuration or on an individual, case-by-case basis, to remain in the Rhapsody system for seconds or months after printing, thus enabling reprints without the need to rerun the application program.

If users realize that their chosen hard copy device is busy printing a large document or has many documents ahead of their output in the queue, they can change the output destination. If users can't find a document on the printer, perhaps because it has been collected in error by someone else, they can use the Rhapsody Web interface to confirm where it was sent and either go to the correct location to collect it or reprint it without rerunning the source application. Users can even view their output online to confirm that it is what they believe it to be, and to help them identify page ranges to reprint.

ROC Rhapsody gathers specific information as to device capabilities, paper trays, interpreter capabilities, alert conditions (both critical - out of paper, and non-critical - toner low) as well as output counts from all SNMP-capable printers. It uses this information to assure reliable document delivery even in unattended environments. Information from SNMP printers can be used to reprint a failed portion of a job or when "exact" accounting of actual pages printed is required.

Secure Data and Printed Output

Weak security in the native spooler adds the potential of embarrassment and legal action to the costs of poor reliability. Output data is transmitted across the network as clear text and, perhaps worse, may lie uncollected and in plain sight on the printer for periods of minutes to days.

While users can monitor, view and manage their own output with Rhapsody, they normally would not be configured to be able to do the same with someone else's documents. Access to documents can be restricted by the same user and group permissions that apply to any other disk file. Further, users can be limited in the destinations they are permitted to utilize and monitor.

Access controls merely scratch the surface of security issues related to application output; two major aspects remain a concern for any enterprise nervous about privacy or fraud. Every company has some sensitive output to protect, be it quarterly results, personnel reports, acquisition plans, or executive compensation letters. Other companies such as healthcare companies and financial services firms have additional regulatory issues they must comply with – HIPAA and SEC rules. Even when directed to printers in secure offices, this output is likely to be stored as clear text in spooler queues and travel as clear text across the network. Rhapsody addresses these privacy concerns through optional encryption of queued documents protecting them on disk and when transmitted between servers.

Fault Tolerance

A backup server can be designated for each Rhapsody server. If the primary master server loses contact with the satellites, the backup master notifies each satellite it should be considered the master and all notification is re-routed automatically. A backup server can also be designated for each satellite server, If a satellite server ceases to respond to the master, responsibility for all its configured destinations is rolled across to the specified backup satellite. Every Rhapsody server on the network is informed of this change and knows to route jobs intended for these destinations to the new server.

Output to fax, email, document repositories, Web and PDF as well as printers

With the native spooler, application output is synonymous with “print out” but this is no longer the case. Rhapsody offers several built-in destination types and can be readily customized to support virtually anything an enterprise can conceive of.

Directing output to fax servers, email addresses, Web pages and long-term document repositories is straightforward. Large reports can split or “burst” into sections that are applicable to individual recipients and distribute the resulting portions to a combination of fax numbers, email addresses and printers local to the relevant person. At the same time, the complete report can be directed to a third party, full text index, document archive.

Simple, line based, legacy output or more modern XML streams can be directed to third party forms processing tools. These can render invoice or account data into customized documents.

Rhapsody’s *Doc2PDF* module permits the conversion of text and PCL output streams to Adobe® Acrobat® PDF documents that can in turn be emailed, archived or posted on Web sitesⁱⁱⁱ.

Conclusion

Even in this short overview, it should be apparent that Rhapsody is a rich product whose capabilities far exceed those of a native spooler. Rhapsody brings efficiencies and cost savings to IT organizations in a wide variety of enterprises, large and small. Those with data security concerns, mission critical output, or excessive help desk call volumes can reap even greater benefits.

About ROC Software

Headquartered in Austin, Texas, ROC Software develops easy to use systems management solutions for UNIX, Linux, Windows and the HP e3000. ROC's decades of cross-platform experience ensures that its solutions exceed customer requirements for reliability. More than 4,000 customers worldwide depend upon ROC Software for innovative enterprise solutions, quality, responsiveness and award-winning support.

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ⁱ Source: IDC "ROI Focus Shifts to Imaging and Output Infrastructure," January 2004.

ⁱⁱ Source: IDC, *ibid*.

ⁱⁱⁱ Adobe and Acrobat are registered trademarks of Adobe Systems Inc.