



Enterprise Process Automation: Leveraging Critical Business and Customer Assets

A GMC Software AG White Paper

Leveraging Business and Customer Assets

The customer database is now recognized as one of a company's most precious resources. Organizations profit from personalizing communication based on information drawn from databases. When this data can be securely and seamlessly managed across all the systems of an enterprise, from data processing to marketing to printing to customer service, the organization as a whole is more effective.

As companies accumulate more and more data in the course of learning about and building relationships with customers, it becomes more important than ever to have solid control over how that data is put to use. Data output as documents often form the foundation of the communications strategies of many organizations. Better information flow and document communication enhance business productivity, practice and knowledge.

Yet process management has become too complex, too demanding and too important for traditional document or production tools. Today's enterprises need a specialized solution that can seamlessly link customer databases with ERP, CRM and the office and publishing applications that deal with the operational data of an organization.

Effective enterprise-level process management systems must be capable of receiving data or already composed documents, then channelling the information to output devices, such as printing and production devices, archiving systems, the Internet, or other local and remote servers. This needs to be accomplished without reprogramming or interruptions in the workflow. Tools that can handle these complex demands can save companies time and money, along with a number of other important benefits. This report explores these benefits and defines the major requirements of an enterprise process management system.

The Value of Enterprise Process Management

Companies are finding success with "middleware" products that more efficiently manage complex data/file exchange, document workflow processes and output throughout the enterprise. An effective enterprise process management system can benefit an organization in many ways, including:

- safe, fast processing of enterprise output production
- seamless delivery of documents from any hardware platform or software application to any delivery channel
- quick return on investment with excellent price/value ratio
- less output creation and management costs
- minimal manual interactions in a production cycle
- eliminating the cost of 'hardwiring' systems to delivery channels
- reducing production costs by implementing a turnkey output management system that is more efficient than using internal programming staff to create custom programs to drive processes.
- improving production efficiency and level of service with right document, right place, right time
- reducing errors to assure complete execution of jobs in the right order

A Tool for All Information Needs

Today users seek tools to handle all the information and output management needs of an organization. Such a solution must collect, analyze and route incoming data from any source for appropriate action at another point. Complete documents or raw data requiring post-processing can be sent from office applications to an intelligent output server for submission to an appropriate printer, archive, or to the Internet.

The ideal enterprise-wide information model avoids isolated workflows operating independently. Companies can achieve greater efficiencies and productivity by sharing data and linking content and workflows. The more full-featured output management products on the market provide the glue between applications such as CRM, ERP, document composition tools and output systems, and include tools and hooks to build or link to any business process.

This centralized control and sophisticated job routing help companies achieve faster, better coordinated response to changes and problems; reduce staffing requirements; enable better resource utilization; and avoid redundancy.

Profile of a Process Automation Solution

Given these requirements, what should the marketplace expect from a process automation tool? The functionality of an enterprise-level process management solution should include:

- central point of control for all functions to track and manage all output and jobs across the enterprise
- viewing, partial printing or reprinting of jobs
- job reprocessing

- highly flexible framework that integrates with all types of formatting and data processing operations
- controlled multi-channel distribution in any printable, readable or executable format to appropriate devices
- compatibility with all major formats across workflows for seamless operation
- no major application change to implement at user site, with physical implementation in just days
- secure, stable investment designed for scalability and flexibility to meet future growth and change
- customization capabilities to allow user to modify and enhance the system

Labor-Saving Automation

Process automation offers advantages for many enterprise needs, especially those involving documents and information management processes. Benefits include repeatable performance, consistent results, measurable outcomes, and more affordable processes. Automated workflow also reduces manual labor and its potential for errors in document production.

Some of the most advanced systems include automation capabilities that pay off in significant labor and time savings. Complete automated job and document processes can be constructed and customized according to enterprise business rules.

Automated capabilities should include transparent resource management, routing for back-up printing, and production statistics. Access control and management should be available to give users high security.

Another important automation feature is automated load balancing. Large jobs can be split for parallel printing on multiple devices. With distributed processing, one job involving different steps can be run in parallel on different servers for performance improvements, rather than duplicating the work on each server. Users gain more efficient use of resources and better scheduling.

Electronic collating is important as well, as it greatly reduces the costly, time-consuming manual effort to compile critical documents such as membership packets. The potential for errors in manual assembly is also eliminated.

Platform Compatibility is Essential

Most organizations are committed to several operating systems, and information comes from many sources, so platform independence is key to enterprise compatibility. The ideal system readily supports the different data formats and data-driven graphics required for complex job handling.

When a process automation system supports mixed operating environments, there is no need to invest in reprogramming or maintaining duplicate applications for different devices. Jobs can be turned around faster because users only need to create them once. The chances of errors and inconsistencies are reduced when there aren't multiple versions of an application to be maintained.

Job and Printer Accounting

As workflow expands to include more stakeholders across the enterprise, it is important for managers to accurately track users and projects across the organization. Process automation systems must offer extensive device and job accounting to allow cross-charging or customer billing as a result. In-house print centers can become profit centers, and organizations can achieve better accounting of resource use. Accounting information of all jobs should be exportable for further processing and reports.

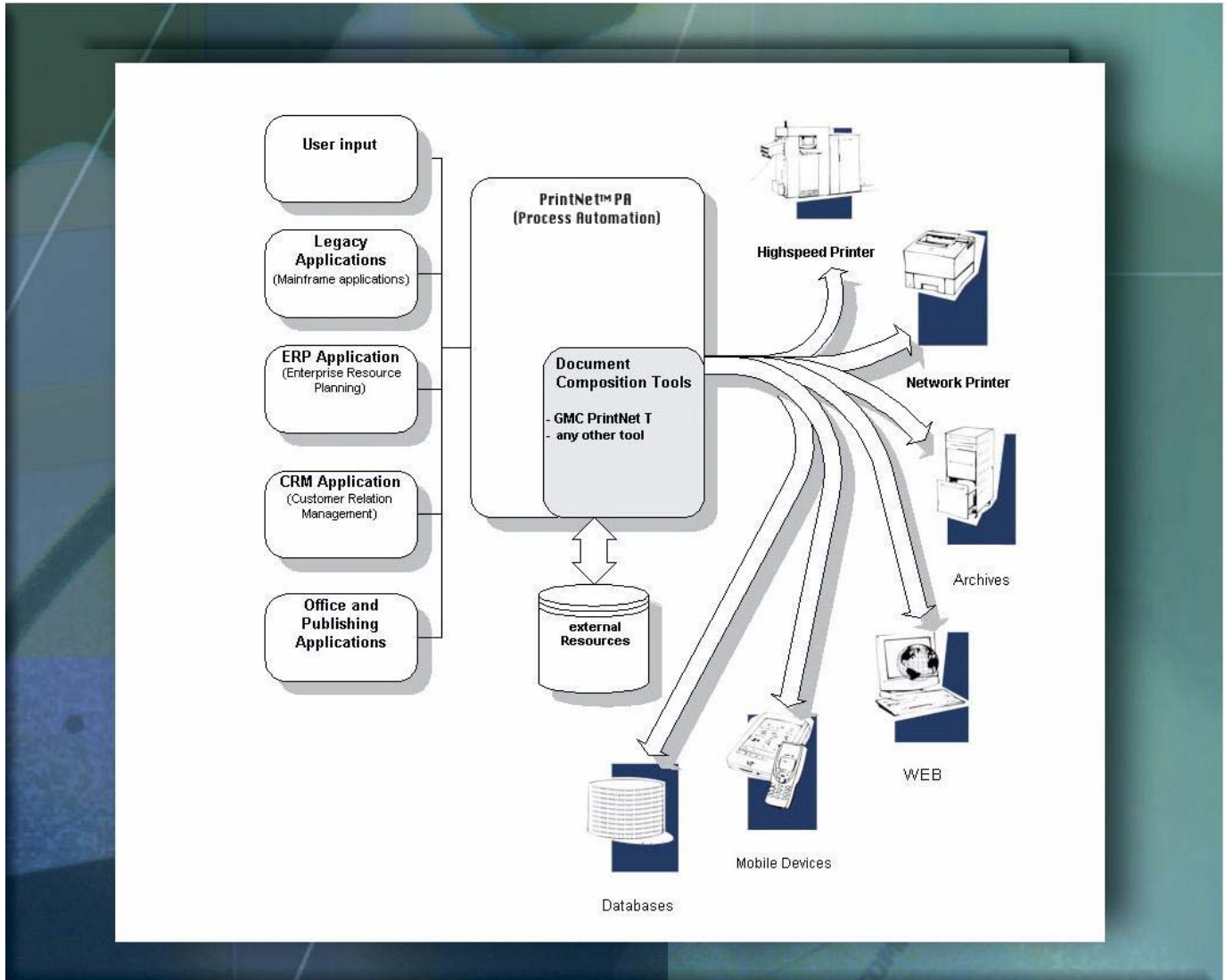
A New Breed of Solutions

A new breed of "middleware" products are enabling enterprises to more efficiently manage complex data/file exchange, document workflow processes, and output across the organization. Some of the best solutions offer advanced capabilities like centralized accounting, concurrent printing, multimedia archiving, and transparent document and output control. One product that closely meets all the key requirements of a process automation system is PrintNet PA (Process Automation) from GMC Software Technology.

An Intelligent Gateway for Efficiency and Reduced Costs

PrintNet PA enables enterprises to more efficiently manage complex document workflow processes and output throughout the enterprise. It serves as an intelligent gateway between document composition tools such as GMC's PrintNet T document design and production software, and output systems such as printers, archives, e-mail systems and web servers. This easy-to-use solution helps companies leverage existing data flow to streamline output management processes for increased efficiency and dramatically reduced costs.

PrintNet PA uses advanced automation to process and route application data streams to the appropriate output devices, while the software's high performance and processing speed help operations achieve maximum throughput. A typical workflow of a fully automated output management solution featuring PrintNet PA is illustrated below.



A Single Tool for Information Delivery

PrintNet PA is one of the few systems available that gives users a single tool to configure and maintain the whole information delivery environment. Users gain a single point of control for more efficient resource management.

When a file comes in, PrintNet PA determines its characteristics, such as PostScript, PDF, or some other format, or black and white or color. Based on established business rules, PrintNet PA will take the appropriate steps, while such as sending the job to a specific printer or placing it in an archive. When the folder for a data file goes to a different location, it is automatically converted to the proper format to be printed locally. It also logs what actions are taken. Any number of hotfolders can be evaluated for arriving jobs and direct traffic to the appropriate processes or devices. The system provides the flexibility to build business rules that define specific steps for each possible scenario.

Standards-Based Compatibility to Protect Technology Investments

PrintNet PA is a leading example of an affordable, multi-platform solution with broad platform support. The system is compatible with Windows, Sun Solaris and Linux and other UNIX environments. A core strength of PrintNet PA

is the command line interface (CLI), which allows it to be easily integrated into existing environments – including ERP, CRM and other enterprise applications – with minimal disruption.

PrintNet PA places strong emphasis on standards. Almost any printable data stream such as PostScript, PCL, Text and AFPDS, can be handled, allowing broader range of applications to be supported. Additionally, GMC's AFP2IPDS device driver lets an enterprise control their IPDS printer on the company network.

Some of the most effective process automation solutions offer built-in device drivers for direct communication and control of printing devices. PrintNet PA features Xerox VIPP data stream support to ensure companies can continue to use existing applications and protect their investment. An AFP2IPDS driver supports IPDS printers, so PrintNet PA can accept an AFP data stream directly and print it without external print server. This eliminates the need for an expensive conversion engine to convert the file to the IPDS language to run the printer. At half the cost of other print server-based solutions, and with this built-in conversion capability, PrintNet PA enables companies to save thousands in costs.

Productivity for Operations of All Sizes

Organizations of all types and sizes are turning to super-intelligent output management solutions like PrintNet PA for advanced workflow-based automation for information processing and document output. Even smaller operations can benefit from enterprise workflow automation.

With modular GMC technology, operations can start with the basics and add capabilities as needed without requiring the use of different vendors for each capability or investing in more than is needed. Scalable PrintNet PA provides an entry-level system that can run in any kind of configuration.

Ease of Administration

An enterprise-wide workflow tool must be easy to use for quick learning and simple administration. Another important administrative consideration is the ability to configure the system from a GUI, allowing any server within the enterprise network to be maintained from a single point. PrintNet PA allows monitoring either from a local console or by web or Intranet view. Convenient GUI job visualization supports pre-flight proofing, error checking and job monitoring for better quality control.

A Methodology for Continuous Improvement

Since its introduction in 2002, PrintNet PA has undergone continuous improvement driven by GMC's ongoing commitment to the Capability Maturity Model or CMM, a proven methodology for improving software development. Among the benefits of CMM are a much improved software features list, a solid process of identifying and incorporating customer needs into development plans and product enhancements, and a more streamlined development capability.

From Desktop to Enterprise

Greater productivity, increased customer service, faster turnaround and higher margins -- all these are possible with an output management solution. No matter how requirements change or markets shift, GMC is continually positioning to help customers create and deliver attractive, affordable, effective communications enterprise wide.

About GMC Software AG

GMC Software AG is the leading global provider of open standards document design, composition and production solutions for the service bureau, commercial print, financial, insurance, utility and telecom industries. The GMC solutions suite includes PrintNet T customized promotional, transaction and on-demand document design and production; PrintNet OM enterprise output management; WebDesign and WebProof web tools for document design, approval and proofing; and PrintNet Connect for integration and support of enterprise applications and J2EE web services environments. PrintNet software features ease of use and implementation, platform and printer independence, and multichannel output support. GMC Software AG is headquartered in Switzerland with offices in Europe, the US, Canada, Latin America and Asia. The GMC group of companies is ISO 9001:2000 certified. For more information about GMC, please visit www.gmc.net.

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