

# Content Management for Departments and Midsized Organizations: Leveraging Small-Scale Solutions for Big Business Improvements

*A Detailed Review*

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## **Abstract**

Relying on manual, paper-based business processes leads to low productivity, increased risk, and high operational expenses for businesses of all sizes. Learn how utilizing a content management solution such as EMC<sup>®</sup> Documentum<sup>®</sup> ApplicationXtender<sup>®</sup>, specifically designed for the needs of departmental applications, can help automate business processes quickly, easily and affordably—reducing costs, improving customer service, and lowering the risks associated with regulatory and eDiscovery requests.

October 2008

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## Executive summary

Organizations of all sizes seek ways to improve business processes—such as accounts payable and customer service—that are fueled by information. Yet in today’s challenging environment, business professionals struggle with how best to manage and protect their critical documents and information assets. Content management solutions are ideal for leveraging documents and information to drive business improvements. These proven solutions allow customers to capture, organize, route, deliver, and archive business-critical information.

Content—typically paper-based forms, documents, invoices, and others—drives business transactions. Organizations that are successful in managing “transactional” content will get their work done faster—and often win business away from less agile competitors. They’ll make better decisions with an integrated view of all relevant information. They’ll improve customer service with better, faster, more comprehensive responses to inquiries. They’ll avoid the fines and embarrassment that happen when a document can’t be located in response to a litigation or regulatory request. And they will significantly reduce costs and increase operational efficiencies.

## Introduction

This white paper discusses the challenges inherent to organizations that rely on paper-based processes yet are constrained by small budgets and IT resources. It lays out the business needs of these organizations for a content management solution. And it describes the EMC® Documentum® ApplicationXtender® solution and how it addresses these challenges.

## Easy and affordable content management

Continued reliance on paper-based processes creates the following challenges for departments and midsized organizations:

- Error-prone manual processes and operational bottlenecks
- Compliance, eDiscovery, and litigation risks
- Poor content access resulting in slow response times and customer dissatisfaction
- Insecure content storage and higher storage costs

The benefits of getting rid of paper can be immediate and dramatic: increased customer responsiveness, reduced cycle time, improved efficiency, lower costs, and better compliance simply by automating manual processes. An organization that wants to get maximum leverage from its content management strategy will consider a holistic, end-to-end solution, one in which all transactional content is managed in a central repository.

But the content management needs of departments and midsized organizations differ from those of both large-scale enterprises and small businesses, as illustrated in Table 1.

**Table 1. Comparing the needs of various organizations**

<i>Typical requirement</i>	<i>Large-scale enterprise</i>	<i>Department/ Mid-sized organization</i>	<i>Small business</i>
<b>Customer solution needs</b>	Platform that offers highly-customizable solutions for document management, web content management, collaboration, archiving, etc.	Focused solutions for specific business problems such as accounts payable, case management, human resources, etc.	Off-the-shelf solutions focused on specific business problems
<b>Size of user community</b>	Large: hundreds to thousands	Typically 10 to 50	Individuals or small departments
<b>Operating environment</b>	Java, UNIX, Linux, Windows	Strongly Windows	Windows
<b>Size of IT staff</b>	Dozens to hundreds	10 or fewer	One or two

Enterprise-scale offerings can be overkill, while low-end solutions typically offer limited functionality that falls short of customer expectations. A content management solution for departments must deliver all the required capabilities—from capture to process to deliver—yet fit the customer’s limited IT environment. It must also meet the focused application needs while delivering rapid return on investment. The solution should enable automated capture of a wide variety of information; provide secure access; integrate with business process management functions; and provide secure archival.



**Figure 1. Elements of transactional content management**

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## Capture

The more customer interactions and supporting documentation that can be captured and stored electronically in a single repository, the more valuable the content becomes and the easier it is to automate business processes. Incoming content comes in many forms: paper, fax, electronic forms, e-mails, XML data, computer-generated content captured through output to laser disk (COLD) systems or enterprise applications, and documents created in applications such as Microsoft Office.

In general, content management solutions for departments and midsized organizations should include the ability to capture any of these forms of data and perform the following:

- Pre-processing that removes noise and other irrelevant material
- Indexing
- Data extraction for use with other applications
- Validation
- Data export for use in databases or business applications

## Integration with business processes

Once documents have been captured in a repository, they can be put to work in automated business processes, enabling organizations to dramatically speed throughput, improve customer service, and avoid errors. Workflow and business process management automates formerly manual tasks and can include functions such as:

- Applying business rules
- Integration with line-of-business (LOB) applications such as ERP, CRM, and Microsoft Office
- Enforcement of records management and retention policies
- Merging of acquired content with appropriate document output management templates to create highly personalized communications, such as customer service letters

## Access with appropriate controls

Managing business files in digital form gives employees the global, on-demand access to content that is necessary to ensure a 360-degree view of customer data and business transactions. Once documents are

An auto accident insurance claim is an example of a situation where many different people, inside and outside the insurance company, need access to the same content: police and accident investigators, body shops and estimators, rental car companies, litigators, internal review staff, and of course the policyholders and agents.

In a “paper world,” such a claim might be held up for months because the materials required were in a physical file jacket that was moving from desk to desk. One department couldn’t work with it until another was finished. Even companies that have succeeded in digitizing transactional content may not get all the benefits of this content because they work with multiple, incompatible applications or because information is housed in separate “silos.” Many organizations have applied first-generation “point solutions” to handle specific functions—one system for handling faxes, another for e-mails, another for manual mailroom handling, and so on. But problems arise when systems hand off data from one to the next: if all the content associated with a transactional decision can’t seamlessly come together, there are multiple delays and rising costs. A skilled, often expensive knowledge worker spends an inordinate amount of time hunting, searching, and/or waiting to access all the right information necessary to conduct the important business transaction.

All of these problems have become magnified in recent years through a wave of consolidation and mergers and acquisitions. A newly merged company might have multiple different—and incompatible—applications doing the same thing. This is a key reason companies are turning to end-to-end solutions from companies such as EMC, which can handle all content and make it available to business applications that need it. The content is also managed so the organization knows who has it, where it came from, and how it has been revised—a perspective that facilitates business clarity and is essential for regulatory compliance

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digitized and stored in a single repository, critical data can be easily extracted to quickly access and intelligently process a customer's request. Employees can search, view, and annotate documents. Information retrieval occurs more quickly with powerful metadata and full-text search capabilities. This access delivers benefits such as collaboration for better decision making and improved customer service.

Enabling greater access delivers benefits, but access must also be controlled to protect customer confidentiality and assure the integrity of records. Typical controls include security measures to determine who can access each document and how often, or annotation capabilities that include information about who commented on documents and when.

## ***Retention, archiving, and storing***

Generally there is a point in transactional content processing where the content is no longer active. At that point it can be "logically laminated" and placed under formal records management control. The choice of an adequate storage strategy is very important because of the sheer volume and size of documents involved. An organization can realize significant savings by moving archived documents from "primary" high-performance storage devices (such as local servers) to disk-based storage devices for less frequent access. Disk-based storage devices offer additional advantages over typical storage media such as tape or optical by ensuring content authenticity, immediate online accessibility, and enforcement of retention and disposition policies for governance and regulatory requirements. Storage solutions should provide for access control and audit trails; built-in protection against media failure, system shutdowns, or external threats; and quick access to records.

## **EMC Documentum ApplicationXtender—end-to-end content management for departments and midsized organizations**

While all paper-intensive organizations can benefit from a modern content management system that bridges the gap between paper and electronic documents, many departments and midsized organizations do not need the functionality of a large-scale, enterprise solution in order to improve process efficiencies. It is still possible for these customers to find robust capabilities for managing paper documents, electronic files, large print reports, and electronic forms; sophisticated workflow capabilities; and powerful records and retention management and archival.

Consider EMC Documentum ApplicationXtender. Its quick and easy deployment in Windows environments and web-based and Windows-based interfaces enable users to be productive in no time. With an economical, cost-effective, concurrent licensing model, ApplicationXtender is an excellent fit for customers on a budget who demand a rapid return on investment.

## ***Eliminating manual processes and operational bottlenecks***

One of the facts of doing business in a paper-based system is that manual processes inevitably slow productivity and create operational bottlenecks that negatively impact company profits. Consider mortgage brokers, for instance. A typical application file for a customer loan might include hundreds of pages of forms, copies of written documents and original certificates of title, digital pictures, faxes, and even handwritten notes. The file can only be handled by a single person at a time, creating obvious bottlenecks.

Digitization and other capture technologies (such as document classification engines, optical character recognition, and distributed capture) that are a part of the ApplicationXtender content management solution allow documents and files to be quickly scanned, stored, searched, and shared to automate paper-based processes, improve customer service, increase productivity, and streamline business processes. For geographically distributed organizations, ApplicationXtender offers multiple options for workstation,

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batch, web-based remote scanning, and distributed capture—all optimized for the needs of departments and midsized organizations.

Captured information can be integrated into workflow at the very beginning of the process, as soon as it enters the system. Designed for a large range of transaction-oriented processes such as accounts payable, accounts receivable, and human resources, the ApplicationXtender solution is engineered to convert large volumes of paper documents and other original content to digital form and make them available for automated business processes.

## ***Enabling compliance, eDiscovery, and litigation responses***

New regulations, ranging from Sarbanes-Oxley to HIPAA to the New Federal Rules of Civil Procedure, place new urgency on the need for organizations of all sizes to store and manage their content appropriately. Doing so ensures content integrity and enables content to be easily, quickly produced in response to not only regulatory requests, but also subpoenas and litigation requests. Not possessing these capabilities can result in significant costs, both in fines for late or incomplete searches and the fees associated with paying outside sources for days, weeks, or months of billable search assistance.

The control and accessibility of an end-to-end content management system are invaluable in responding to requests and can:

- Eliminate the inherent risk of paper documents that are easily lost, misplaced, altered, or exposed inappropriately
- Ensure the integrity of documents
- Provide a verifiable audit trail
- Set and enforce policies for safe disposition of documents when their retention period has ended
- Enable fast and cost-efficient access to documents in the event of litigation.

EMC Documentum Records Manager for ApplicationXtender allows organizations to create, safeguard, and access records and cost-effectively archive or destroy them according to system-enforced administrative, regulatory, or legal rules. Organizations can demonstrate compliance with regulations, defend internal policies and actions, and avoid legal, monetary, and procedural penalties while protecting intellectual resources, reducing expenses, and protecting their corporate image. You can also use Records Manager for ApplicationXtender to apply formal records management policies and controls to business information stored in the ApplicationXtender repository. In addition, you can apply simple retention administration policies and disposition controls for business-defined periods without having to utilize formal records management practices.

## ***Enabling quick integration with existing business applications***

ApplicationXtender delivers an innovative technology for providing end-user access to relevant business documents from within existing applications. ApplicationXtender Integration Module (AXIM), an add-on for ApplicationXtender, allows companies to quickly “image-enable” virtually any application without programming. With AXIM, users can easily retrieve stored document images and information from within the business application they are using by hovering over or highlighting a field in the application and hitting a hot key. A query is generated to ApplicationXtender and the appropriate information is retrieved. AXIM even gives users the option of voice commands to retrieve content. For example, customer call center employees can retrieve any document relevant to a specific customer, account, or transaction from within the primary application interface.



## ***Delivering quick access for improved response times and customer satisfaction***

In most industries and throughout government agencies, high volumes of paper documents are the norm. And these documents often must be accessed by many different organizational functions. The fact is that relying on manual processes frequently results in procedural bottlenecks that negatively impact the customer experience, customer loyalty, and repeat business, contributing to lower productivity and higher operational expense.

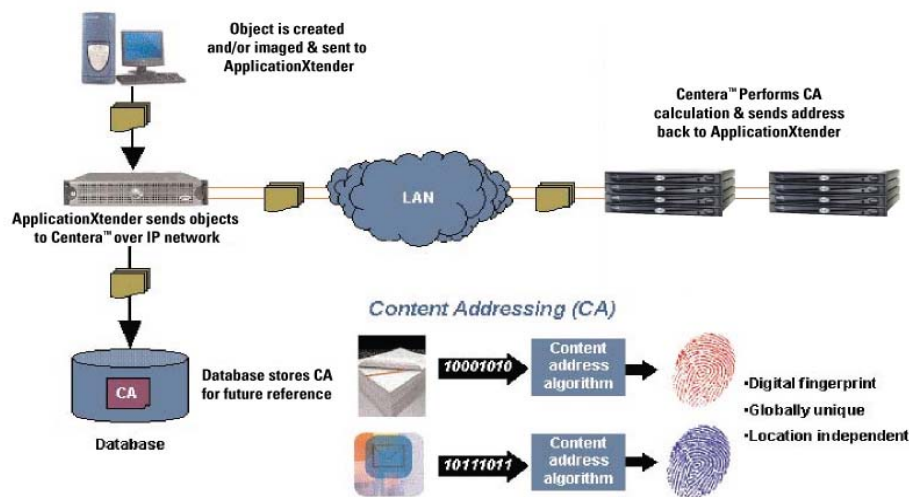
Departments and midsized organizations, like all organizations, need the ability to quickly access the right information in order to satisfy customers and promote customer loyalty. ApplicationXtender provides customer-facing agents with convenient web and desktop access to content, providing a holistic view of information that allows them to provide better customer services and that leads to fewer lost customers. It also saves time and money because more issues can be resolved on the initial contact.

## ***Providing secure archival***

While ApplicationXtender meets the business needs of departments and midsized organizations for managing transactional content, many customers also require the ability to control electronic content by preventing data theft and providing assurance that data has not been altered after it has been archived.

EMC Centera<sup>®</sup> content-addressed storage is the industry-leading storage solution for secure archival. A single, scalable, secure storage solution for cost-effective retention, protection, and disposition of a wide range of content, EMC Centera delivers tamper-proof audit trails and ensures the security and authenticity of each piece of data. EMC Centera has the unique ability to enforce application-based retention periods within its microcode, permitting only authorized individuals to lengthen retention periods, but prohibiting anyone from shortening retention periods. Finally, EMC Centera provides single-instance storage, making it a cost-effective solution ideal for midsized organizations.

The direct integration between ApplicationXtender and EMC Centera (see figure 2) enables you to apply automatic or manual retention capabilities such as holds, reporting, disposal, and audit trails to documents, and to utilize Centera-specific features for high-availability and disaster recovery such as replication and failover.



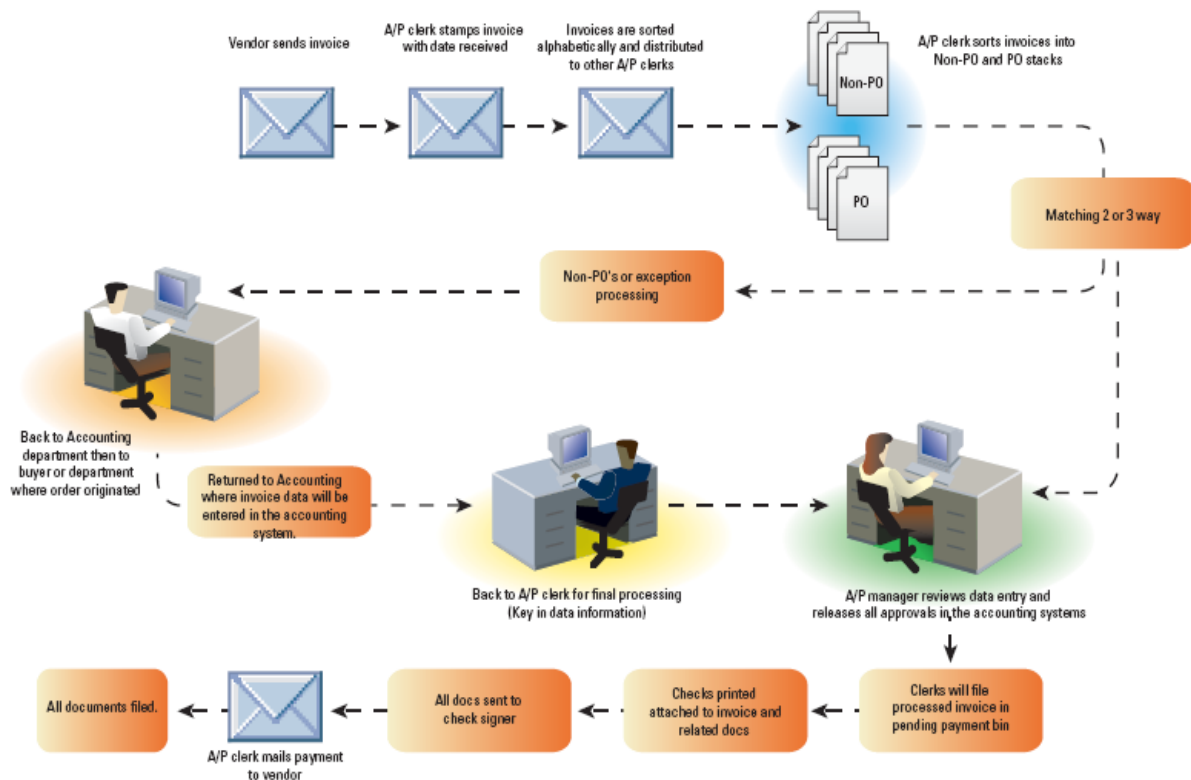
**Figure 2. How EMC Centera and content-addressed storage work**

# Content management in the real world — Accounts Payable

## *Typical manual invoice flow from receipt through payment*

Accounts payable (A/P) departments in most organizations are presented with an ever-increasing volume of paper invoices that exceed their resource capacities. The sheer volume alone prohibits them from processing invoices in a timely or cost-effective manner. In addition, the invoice process generally covers a widely distributed environment—creating complex and time-consuming invoice approval and payment authorizations. Also, data entry and A/P matching is often cumbersome and delays the transaction completion, making timely payments difficult to achieve. A/P managers know that paper has additional disadvantages—it is subject to short- and long-term damage; it is costly to produce, distribute, destroy, copy, and print; and it presents additional challenges associated with storing and archiving.

Figure 3 illustrates the typical accounts payable process flow in paper-based environments. The manual steps lead to numerous inefficiencies that are error-prone, increase costs, and incur litigation risk, late payments, and missed prompt-payment discounts.



**Figure 3. Typical manual accounts payable invoice process flow**

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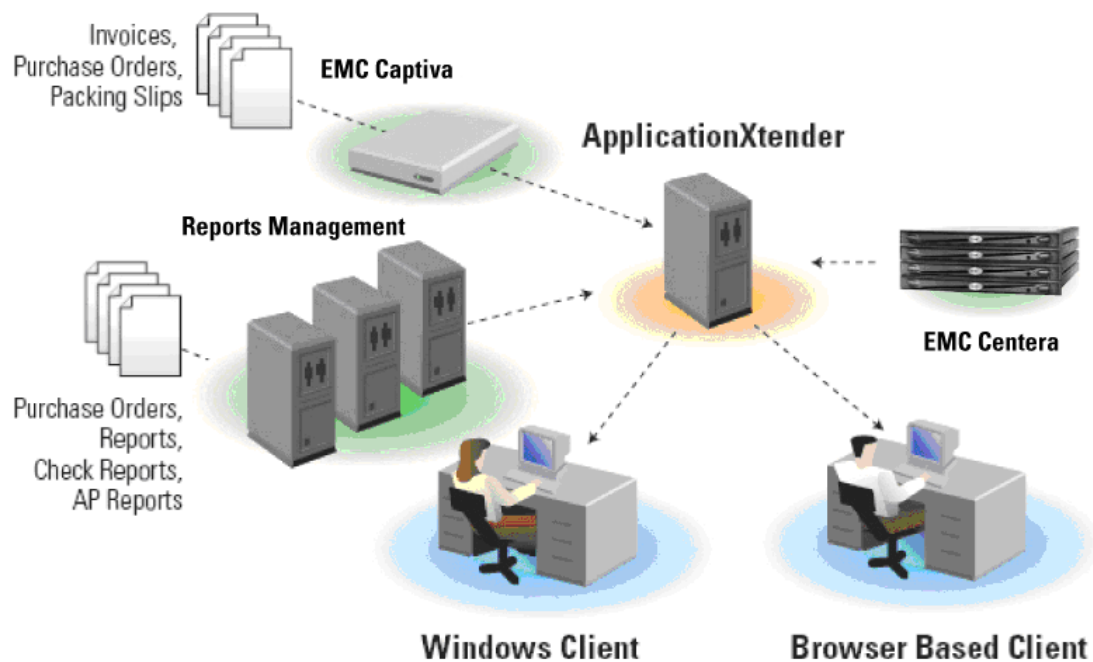
## ***Invoice flow with EMC Documentum ApplicationXtender content management solution***

Eliminating the disadvantages of manual invoice processing with the EMC Documentum ApplicationXtender solution for accounts payable enables accounts payable departments to:

- Capture and store all information electronically
- Provide timely access to all invoices and supporting documents, and view and manage tasks directly from desktop or browser-based clients
- Index and view invoices received by a vendor; retrieve and relate invoices and packing slips to orders; and track reimbursements from vendors as necessary.
- Streamline invoice/transaction approval, data entry, and costs/GL coding processes
- Automate posting of payables transactions to a financial or ERP system
- Leverage secure storage and controlled access to information on a “need-to-know” basis
- Leverage technology investments and skill sets through integration with enterprise business applications

In addition, administrators can review the status of a user’s workload, facilitate invoice approval and signature sign-off, reprioritize existing work if required, customize reporting, and monitor overall system performance.

Figure 4 illustrates the integrated solution from EMC, including EMC Captiva® QuickScan™ Pro, ApplicationXtender, and EMC Centra.



**Figure 4. Accounts payable solution from EMC**

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The following are the steps that the EMC Documentum ApplicationXtender solution takes to process an invoice.

### **Step One: Capture**

Invoices and other paper documents are captured via QuickScan Pro. QuickScan Pro supports image enhancement, optical and zonal character recognition, barcode and patchcode recognition for automatic document separation, and the advanced document features of virtually any commercially-available scanner. Critical information such as vendor, date, and amount are extracted automatically, reducing human intervention and the error. The invoices and extracted information, along with system-generated reports that are captured by Reports Management, are sent to ApplicationXtender for further processing and management.

### **Step Two: Coding/Cost distribution**

The processor determines cost distribution for the invoice and codes each line item on the invoice. Account codes can be loaded from existing systems and selected via pull-down dialog boxes.

### **Step Three: Routing and approval**

Once the invoice has been coded, it is routed to the approver by automated ApplicationXtender workflow. The approver can select to approve a line item(s) or entire invoice. If they do not have final approval, or need additional line items approved, they can route the document to the next level. Upon final approval, the system updates an external A/P system or ERP with cost distribution data and payment checks are created and distributed.

### **Step Four: Archival**

A summary report is created and attached to invoice images for storage. An index record is created, pointing to the same image invoice for each invoice line item, including amounts, general ledger account number, and approving authority. The invoice and all associated documents are stored securely and cost-effectively on EMC Centera.

Utilizing ApplicationXtender can offer a 30 to 40 percent productivity improvement over traditional manual invoice process methods. Key benefits include the ability to take advantage of prompt-pay discounts, elimination of late payment penalties, increased credit rating by facilitating on-time payments, and improved productivity by reducing manual errors and increasing personnel and resource bandwidth capabilities for handling invoice volume growth without adding resources.

## **Conclusion**

Automating manual, paper-based processes can provide departments and midsized organizations with competitive advantages: decreased operational costs, improved customer service, and the ability to respond to regulatory or litigation requests quickly and easily. A content management system is the best way to achieve this automation.

The integrated content management solution from EMC—including EMC Documentum ApplicationXtender, EMC Captiva QuickScan Pro, and EMC Centera—provides departments with an out-of-the-box, affordable, cost-effective, yet comprehensive transactional content management solution tailored to their specific needs. The EMC solution delivers all the required capabilities—from capture to process to deliver—meeting focused application needs and delivering rapid return on investment while fitting well within the budgets and IT environments of departments and midsized organizations.

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An integral piece of EMC's vast portfolio of information lifecycle management products, EMC Documentum ApplicationXtender is supported by a strong value-added partner community with considerable domain expertise. An installed base of more than 8,000 active customers across a wide variety of industries and applications is a testament to the product's value to mid-sized customers. Finally, ApplicationXtender is backed by EMC Corporation, the world's leading developer and provider of information infrastructure technology and solutions and one of the world's 10 most valuable IT product companies. You can rest easy knowing that your investment in EMC is a safe one.

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