



White Paper

# Streamlined Document Capture and Handling

Characteristics and Considerations of Omtool AccuRoute®

**omtool**

Driving Your Information Route™



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# The Groundswell for Streamlined Document Capture and Handling in the Enterprise

In virtually every document-intensive industry, including legal services, healthcare, financial services, or other highly regulated markets, most organizations are absolutely inundated with documents (both electronic and paper) and hampered by a patchwork of inefficient processes. With a growing range of applicable frameworks such as Sarbanes-Oxley, every publicly held company is also heavily regulated.

In these environments, it's no longer acceptable to leave document capture and handling vulnerable to disjointed processes that allow individuals to make decisions about how to process and track critical business documents. The organization must set and enforce policies and structured procedures that specify how documents will be handled throughout their full lifecycle – from creation and storage to access, routing, and archiving. Just as unacceptable is addressing only some of the content. The fact is, all content in all formats must be managed, including both electronic *and* paper documents. Whether it's paper or electronic documents, widely varying content sources and formats make it inescapably clear: outdated methods for handling, processing, and storing documents are costing organizations far too much time and money.

Companies of all sizes across numerous industries are increasingly seeking to deploy systems that provide enterprise-class, streamlined document capture and handling through:

- The ability to capture documents from virtually any multi-function peripheral (MFP), including “smart” MFPs that provide sophisticated embedded software in their displays;
- “Any-to-many” simultaneous distribution of documents to multiple destinations such as fax, e-mail, document and records management systems, and document archives;
- The ability to capture paper, electronic, and mixed-mode documents (a combination of both) while integrating them into electronic file structures (including document management and storage systems);
- Decentralized document capture and scanning; and
- The flexibility of personal document routing instructions and the availability of public routing rules.

For users, streamlined document handling provides an efficient and easy-to-use capability to capture, transform, and move documents among people, places, and formats. The organization benefits from the cumulative improvement in staff productivity. It also enjoys more consistent, high-quality output because streamlined document handling makes it easier to provide the entire workforce with access to information that will help them to perform their jobs. Standardized procedures about how to create, handle, edit, and archive documents within teams also results in consistent, high-quality output. Just as important: streamlined document capture and handling ensures a comprehensive compliance audit trail of who has sent what information to whom and when. This information is essential in order to comply with the numerous regulatory policies facing most organizations.

## Why Streamlined Document Capture and Handling?

**For Users** –The ability to quickly and easily capture, distribute, and access paper and electronic documents within structured work processes.

**For the Organization** – The enabling foundation for standardized policies and procedures to route and handle documents within the organization – productively and in compliance with regulations.

## Bringing Enterprise Control

Over time, printer-class and copier-class MFPs – possessing varying levels of document handling capabilities – have been installed in various locations of the enterprise, often in an unplanned and evolving manner. When a copier or printer reaches the end of its life, it gets replaced by a more sophisticated device – typically an enterprise networked device.

Without proper enterprise management tools, this scenario can create a somewhat disjointed, random collection of devices that lack the appropriate levels of management infrastructure enterprises customarily require – the tools, systems, processes, and controls that enable IT to deliver a common, consistent, and reliable document capture experience for the user.

This disparate environment is changing as a familiar “stack” emerges: hardware, system-level software to manage the devices, a platform to build and customize applications, and higher-level features available through an administrative interface. Today’s device makers are providing software development kits (SDKs) that enable third parties to add entirely new features, custom user experiences, and even restricted access to features and functions.

### Streamlined Business Examples

**A Simple Example** – An individual takes a signed paper contract, scans it (using a digital copier) to turn it into a digital document and e-mails it back to his own e-mail box so it can be filed alongside the original electronic document (DOC) and all related e-mail communications.

**A Sophisticated Example** – A team of attorneys is working for a specific client on a specific matter or incident. All content related to that matter is captured by the digital copier and collected and consolidated into a single content repository – such as a document or content management system. All documents and other relevant content – in all formats – are available from a single, central, and secure repository.

## The IT Requirements

Managing documents – paper and electronic – throughout their entire lifecycle requires a comprehensive strategy for streamlined document capture and handling – one that addresses each step, from creation and collaboration to distribution, records management, and archiving. Streamlined document handling solutions address content in all forms through a single, consistent, integrated system that covers both electronic and paper documents.

For large enterprises with unique sets of requirements for all technologies and systems that they deploy, streamlined document handling is a particularly well-suited solution because it enables them to get their arms around a problem that grows exponentially more challenging as document volumes increase. The ability to efficiently and effectively handle massive volumes of documents with reliability and consistency across disparate geographies with distributed groups of users virtually mandates this class of solution. The following are some of the key requirements for enterprise-class streamlined document handling systems:

- **Manageability** – This is a critical issue for enterprises. If the document handling solution requires the deployment of hundreds of terminals to support thousands of devices, it cannot be feasibly managed in a meaningful way. The architecture must support centralized management while enabling decentralized document capture. From an administrative perspective, the right solution should take full advantage of Microsoft management tools such as Microsoft Windows event logs, performance monitors, and Windows consoles. This enables an organization to configure unattended, low-maintenance operations and receive exception notifications and alerts. For instance, an administrator can specify a monitoring application to notify him or numerous people if certain events occur – such as a failed document conversion, a lengthy queue (say, 20 minutes or more), or even a complete system failure.
- **Reliability** – IT expectations for enterprise applications are high – and there’s no tolerance for an application failure that could leave thousands of employees unable to print, fax, or scan documents. For instance, if a document file conversion fails, the system shouldn’t crash – it should retry. There should be built-in failover so that if the primary system (in the cluster) fails, a secondary server takes over. A SQL-based message queue working with a reliable database management system should store the

current state of jobs in SQL tables so that if a problem occurs, it can quickly roll back to the last known state and restart the process.

- **Scalability** – Component-based architectures enable IT to simply plug in other nodes to increase its throughput and capacity – without penalty. Virtual machines (VMs) are also increasingly popular for their ability to bring efficiency, cost-control, and on-demand scalability.
- **Security** – From a technical *and* user perspective, an audit trail lets the organization track who did what, when, where, and with what documents. Best practices such as encryption, firewalls, and other security measures are essential elements of enterprise document management as well.
- **Flexibility** – An organization needs the ability to integrate document handling into unique IT environments and applications. Make sure the application/platform selected is easily customizable and supports an environment for both today and what is planned in the future. The solution chosen must also offer the flexibility of providing company-dictated document workflows, as opposed to only provider-dictated workflows.
- **Cost-Effectiveness** – A less-managed, less-reliable system is inevitably more expensive over the long term. Systems that provide a reasonable ROI are achievable with properly designed and priced document handling solutions today.
- **Control** – By requiring authentication at the MFP, companies can role-restrict access to features and personalize the user experience. For instance, Joe can use color-copying or color-printing features and send long-distance faxes but Jane can't. This also permits chargeback cost-recovery. A company might permit certain users to scan to their own e-mail address. Others might be allowed to scan into various document management systems (e.g. Microsoft SharePoint, EMC Documentum, Interwoven WorkSite, Open Text/Hummingbird DM, among others) or scan to multiple distributions and destinations.

## A Focus on Distributed Capture in the Enterprise

The ability to define a “paper-in/paper-out” status in a document capture and handling system is a crucial consideration – particularly over a distributed enterprise. Leveraging familiar, ubiquitous, simple, and reliable MFP devices, enterprises can connect to a software-based infrastructure to unlock an entirely new class of functions that streamline the handling, conversion, storage, and retrieval of documents as well as reintegrating paper documents into electronic business processes. However, it's essential that IT recognize these MFPs are network nodes that must be managed to obtain the greatest value at the lowest cost. The key strategy: centralize the processing, storage, and routing while leveraging distributed capture at dozens, hundreds, or even thousands of MFP nodes on the network. The following section outlines the key principles and requirements to implement distributed document capture:

- **Focus on the MFP as the Core Capture Device** – Before today's class of sophisticated MFPs arrived, streamlined, enterprise-class document handling was not feasible. Traditional production scanners are powerful and important tools, but they are specialized devices for trained workers who use them for the majority of their work responsibilities. They aren't suitable for casual use or many of the other features that broad classes of users require. Today, new copier-class and printer-class MFPs have the right mix of feature-rich sophistication, usability, and cost-effectiveness to warrant broad deployment.
- **Networking** – The MFPs must be connected to a software-based infrastructure on the network to enable post-capture document routing. In the best instances, this document routing solution embodies a three-tier architecture consisting of:
  - **The MFP Hardware Platform** – This includes the device's system-level software and network connection.
  - **Document Handling Middleware Application** – This software platform centrally controls and manages all of the document conversion, compression, routing, auditing, and more. This layer acts as a “many-to-many” hub, supporting  $n$  devices and  $n$  destinations.
  - **Destinations** – These are the recipients of a document whether it is a network printer or folder, e-mail, fax, or a more sophisticated document management system, etc.
- **Provide All Users with Basic Scanning Functionality** – Regardless of their role or level in the company, every user should have access to a foundation of basic, consistent features from a device that is managed, supported, available, reliable, and understandable. For instance, every user should be

able to select simple scan settings at the device, perhaps convert a file to another format, and route the scanned output to their own e-mail address or to a fax number.

- **Offer Advanced Functionality for Select Users** – Certain users, departments, and groups will require advanced functionality, more sophisticated features, and specific workflows. These can include integration with enterprise information systems (such as content/document management systems ERP, CRM, or specific vertical applications), archiving, audit logging, support for e-forms and barcoding, electronic signatures, and more. All of this is available through today's enterprise-class MFPs.

## AccuRoute: The Document Capture and Handling Solution

AccuRoute is Omtool's modular, scalable enterprise document handling solution that captures, processes, and distributes paper and electronic documents. Conceptually similar to a network router, AccuRoute transforms both paper and electronic communications to and from a variety of required formats and securely sends the documents inside and outside the organization. These delivery options include scanning to various destinations and recipients simultaneously including "send to" desktop, fax, e-mail, network folder, and printers (with full enterprise fax capabilities from Omtool) and/or "save to" document repositories, document management; records management; enterprise content management; case management; cost recovery; litigation support; and archive/storage systems — even hand-held devices.

By incorporating paper and electronic (mixed-mode) documents into a single, efficient, and managed system, AccuRoute allows users to define document distribution rules integrated into their electronic workflow and accomplish multiple, complex document routing tasks easily, while providing the company with increased control over security and records management — all from the user's desktop.

Unlike other solutions, AccuRoute provides end-to-end business document capture and handling that incorporates any combination of paper, e-mail, fax, or electronic document. There are significant differences in the way that AccuRoute enables the end-user to control his own routing rules and requirements that are accomplished without losing required enterprise-level control. AccuRoute is unique in its ability to leverage native interfaces, e-mail, desktop applications, and DMSs – interfaces that users are familiar with and that lead to a lower total cost of ownership.

- AccuRoute is an enterprise-class document handling solution enabling distributed document capture
- Enterprise-class characteristics include manageability, reliability, scalability, flexibility, security, and audit and tracking capabilities
- Users can distribute documents to multiple destinations such as e-mail and document and/or records management systems – all simultaneously
- The solution conforms to existing and future infrastructure for increased return on investment (ROI)
- AccuRoute leverages fully integrated enterprise fax capabilities

## How AccuRoute Works

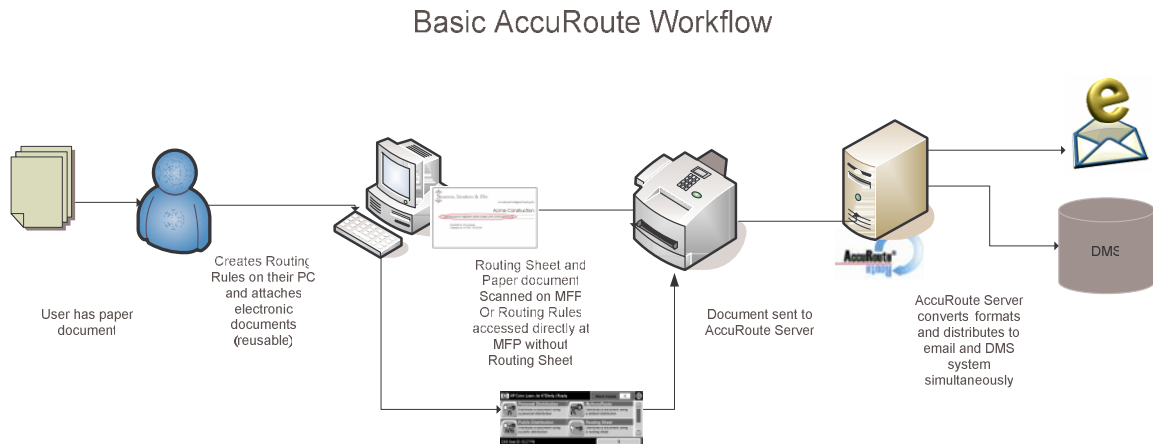
AccuRoute uses special routing rules called "embedded directives" to capture, convert, and route scanned documents according to specific instructions. These routing rules may be created at the end user's desktop and then accessed from a scanning device, a cost recovery terminal, or through the use of a printed Routing Sheet. This Routing Sheet feels just like a fax cover sheet, but when it is scanned on a networked MFP, it directs AccuRoute to process the document according to its routing rules (or embedded directives). Each of these embedded directives may be archived for re-use, distributed to team members, or posted on a corporate Web site for pre-defined, general-purpose routing. Alternatively, employees who prefer to use the front panel of a "smart" MFP or other scan-enabled devices may access the same routing instructions from the device itself. In support of that core functionality, AccuRoute consists of two basic components:

- The AccuRoute User Interface: Accessible from an end-user's desktop, a "smart MFP" interface, or a cost recovery terminal, the client portion of AccuRoute is an intuitive program that is used to generate

PDF-based intelligent rules and Routing Sheets (if desired) that are used to scan and route paper or digital documents to the AccuRoute server for processing.

- The AccuRoute Server: The server portion of AccuRoute processes the documents, converts them, and routes them to the appropriate destination as defined by the intelligent Routing Sheets.

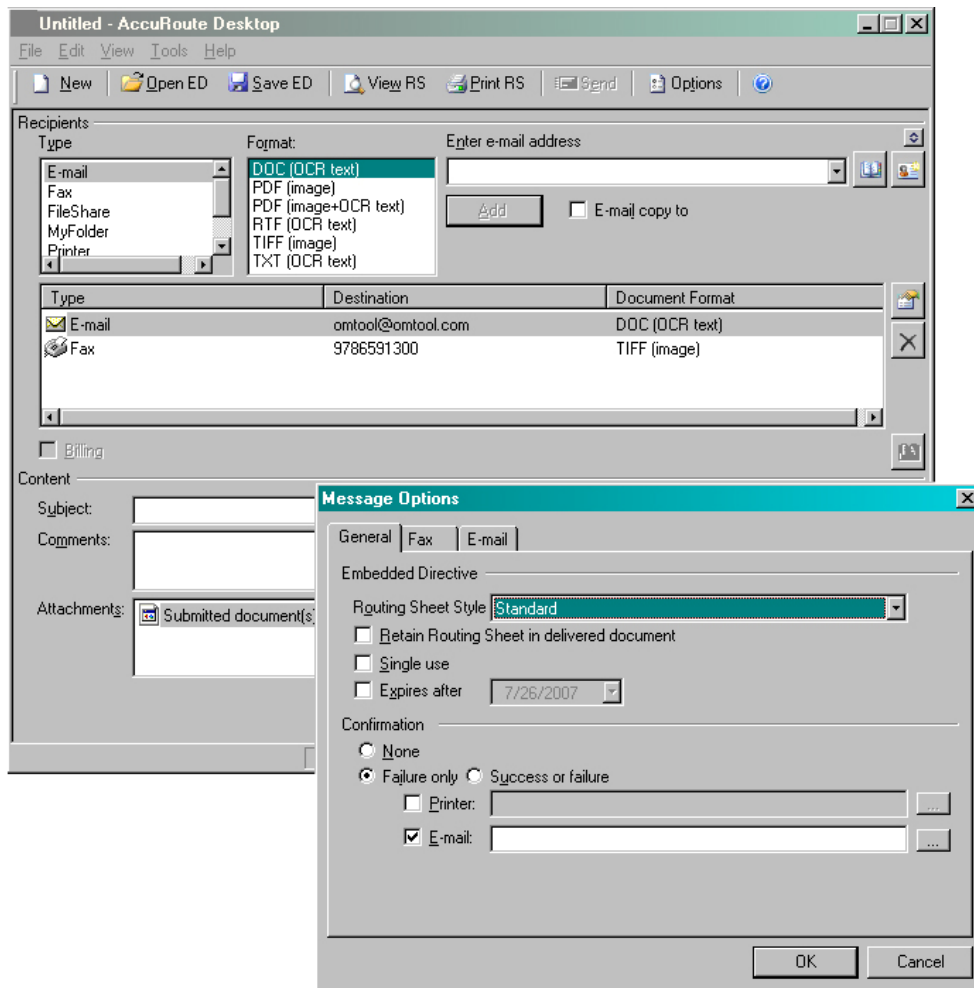
Using the AccuRoute client, a user creates document-specific routing rules that define the format of the document and its destination(s). Once created, these routing rules (embedded directives) can be saved and reused. Typically, users print Routing Sheets to be placed on top of the documents to be scanned, and then place the documents in the document feeder of a network-enabled scan device. Optionally, some firms are leveraging new “smart” devices that contain embedded software allowing AccuRoute to be accessed from the front panel of the device. The following image describes a typical document workflow:



1. AccuRoute’s Routing Sheet contains information about the document provided by the user, as well as an embedded directive — a unique identifier that signals the server to process each routing workflow.
2. Once these distributions are input at the desktop, the Routing Sheet is printed.
3. Using an MFP or any scan-enabled, networked device, the Routing Sheet and the documents to be scanned are captured and sent to the AccuRoute server.
4. The server looks for the Routing Sheet, reads the embedded directive, and removes the routing sheet from the scan job.
5. The server sends the document to the appropriate supported document management systems, fax, e-mail, printer and/or Windows fileshare in the required formats (Microsoft Word, TXT, RTF, PDF, text-searchable PDF, TIFF, etc.).

### Creating a Routing Sheet

The system features an intuitive single-screen interface for entering fax numbers and e-mail recipients (using personal and public contact lists through a specified exchange server), file formats, saving locations, and more. What’s more, those Routing Sheets can be reused. Specified value-added options can be set such as notifying the owner of the Routing Sheet once all faxes and e-mails have been delivered. With cost recovery systems, billing information is captured for each transaction and stored in a database and made available to third-party time and billing systems.



## Benefits of Document Capture and Handling

- **Capture** paper and electronic-based information for efficient document handling with distributed end-user access
- Achieve **Compatibility** with any networked scanner, scan-enabled digital printer, copier, fax, or MFP
- **Convert** paper and electronic documents into a variety of formats including a text-searchable PDF, TIFF, JPEG, DOC, RTF, or TXT file
- **Combine** paper and electronic-based information to create “mixed-mode” documents
- **Create** personal and public document handling rules (embedded directives) that may be saved for reuse
- **Compress** documents up to 80 percent of original file size reducing electronic transmission (bandwidth) and storage requirements
- **Communicate** with various destinations and recipients simultaneously, such as desktop PCs, faxes, e-mail, network folders, printers, document repositories, document management systems (DMS), records management systems (RMS), enterprise content management (ECM), and litigation support systems, as well as hand-held devices
- **Collaborate** on documents that were previously difficult to share
- Use a **Consistent** and intuitive desktop interface that directly leverages existing applications and eliminates the need to learn proprietary systems
- **Comply** with a vast range of corporate record-retention requirements, government regulations, and industry mandates

## An Architecture for Enterprise Document Capture and Handling

- Microsoft SQL Server foundation
- Multi-threaded, component-based, Unicode software core
- Scalability to support  $n$  components of a given type, to meet increasing volume requirements
- Pluggable architecture to support a growing number of integrations over time
  - Collect from more sources
  - Custom processing
  - Deliver to more destinations
- Centralized administration, management, and reporting tools
- Secure audit trail with long-term storage, backup, and recovery
- Customizability through extensive configuration capabilities and rich APIs
- Field-proven technology and an organization to support the solution

### Summary

Companies today are facing greater document volumes than ever before – a trend that is only growing. Companies can no longer tolerate the multifaceted costs and risks associated with ad hoc management of documents and processes. Streamlined document handling – capturing paper and digital documents, transforming them into multiple formats, and securely routing, storing, and archiving them – offers many compelling advantages.

For users, streamlined document capture and handling creates new levels of efficiency through faster, more effective processes. For organizations, the opportunity for greater productivity, stronger compliance, and lower costs are all contributors to a compelling ROI.

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### The Payoff of Streamlined Document Capture and Handling

**Increased Productivity** – Users can capture, convert, route, and archive documents faster and more efficiently.

**Greater Information Sharing** – Organizations can share information worldwide more easily – all from one central, secure location.

**Stronger Compliance** – Consistent processes yield predictably high quality results that comply with increasingly complex regulations. What's more, secure document handling creates a tight and explicit audit trail.

**Faster Business Processes** – Freed from the constraints of paper documents, organizations can accelerate their business processes and be more responsive to customers and clients.

**Lower Costs** – By integrating paper into structured processes, businesses can save direct costs associated with paper and storage (including real-estate and off-site storage costs) – as well as achieve productivity-based cost-savings.

**Greater Security** – Documents that are captured, converted, and stored in online content management or document management systems enjoy enterprise-class security – something regulators increasingly demand.

**Disaster Protection** – Digital documents can be backed up and stored safely in remote archives as part of a sound business continuity plan – safe from floods, fires, and other natural and manmade disasters.