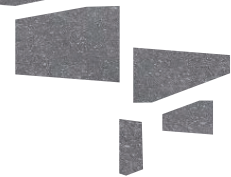




KONICA MINOLTA

# KOMI DOC - WHITE PAPER

✍ Breaking free from paper to increase productivity and reduce operating costs



KOMI DOC  
**DOCUMENT  
MANAGEMENT SOLUTION**



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# INTRODUCTION

Implementing an electronic document management solution as part of a paper documents digitization project inside an organization or a department offers various discernible advantages, among which a rise in employee productivity and the decrease of operating costs.

In order to leverage these advantages, it is essential to choose a solution that is capable of satisfying the internal needs in terms of document workflow optimization, but also to keep up with the work habits and IT skills of the employees.



Written for the professionals who want to optimize paper/digital documents management in their organization, this white paper explores the various possibilities offered by KOMI DOC's solutions, by describing:

- How to start a document management project
- How to achieve a paperless office
- How to improve document security

We hope that this white paper will help you in your documents flow optimization project.

Bear in mind that, to achieve success in such a project, you of course need to choose a powerful solution, but you need above all else to correctly analyze your needs and support the internal users through the transition.

# DOCUMENT MANAGEMENT DEFINITION

**The term document management encompasses all the processes of managing a document (whether it is paper or digital), from its creation to its destruction with eventually a retention phase, in a given environment.**

« In a world where information is ubiquitous but also more and more complex in nature, the company leader faces one of the most difficult challenge in terms of survival and development of a company, and that is the strategic management of information. Whether it is collecting data from the external environment or from inside the company, a fast access to information will only be available if the organization has implemented a structured information watching, formatting, access and renewing process. »



## ▀ DMS, standing for Document Management System

«means to coordinate the redaction, review, control and distribution of documents pertaining to quality, security or environment during their whole life cycle.»

▀ **DMS usually possesses 4 steps: capture, management, storage and sharing of the documents.**

### 1 - Capturing documents

Document capture is an automatic or human (via digitization or creation of a document) process in order to create, save, file or index digital documents.

#### **A - Creating the documents**

Documents creation can originate from different sources:

- Digitization of existing paper documents using scanners, Multifunction printers. Various technologies are available in order to extract information from these digitized documents and consequently enrich an organization's metadata (category, author, title, date...).
- Integration of existing digital documents: office files (doc/xls/ppt, etc.), PDFs, photos, videos, emails and documents generated using business applications such as ERP, CRM, business management, etc.

#### **B- Indexing the documents**

Before they can be filed, the documents need to be indexed so as to make their use easier. Indexation is the process of determining terms or expressions that will then be used as access keys to find the document inside the filing system. There are two indexation categories:

- Indexation by type: uses the document's metadata (category, author, title, date, etc.).
- Indexation by keywords: uses the content of the document. The goal is to list the terms that appear the most frequently or to select terms that relate to the document in a predefined list of words call thesaurus (list of words related by hierarchy or equivalence).

Indexation can also trigger a review and validation process (validation workflow) depending on the organization's needs. Whatever the sources the document management system uses, the DMS tool must be able to lead to a final version, approved by the relevant users. You can adjust the parameters of workflow related to a document validation and said workflow will take into account the access rights and profiles of the users in the system (in conjunction with a LDAP directory). The actions that take place are usually document status, version and visibility management.

### **C – Filing the documents**

The goal of this operation is to file the documents in an IT space available to the relevant users. Filing can be automatically done based on the document's metadata, or it can require the intervention of an agent. The defined filing logic (alphabetical, numerical, chronological, etc.) will be translated in a file plan in the tool.

## **2 – Managing documents**

The management process covers every action that takes place on the document after its creation:

- Security and access rights: that is that capacity to make the document accessible to authorized persons, but also the encryption, actions restriction on the content and the concealment of given fields.
- Administration as such: changes to the metadata used to assign and locate the document.
- Document variation: process linked to the change, without consequences, on the informational content. It concerns for example internal organization documents for which users want to add the chronological processing steps in order to improve traceability. It can also be about a change of state or status of the document.
- Evolution of the document: process linked to the change, with consequences, of the informational content in order to reflect reality. These are documents that will evolve on a successive versions basis for regulatory, organizational, technical, etc. reasons (with or without preservation of the intermediate versions and statuses).

## **3 – Storing documents**

This step has different challenges: the notion of preservation in order to maintain the long-term availability of a document. This concept incorporates a notion of duration inseparable from the final outcome for the document: long-term filing, revision or destruction. Therefore, the problems are as follows:

- The storing medium must be suited to the documents volume. It must also offer a reliable access time, depending on the viewing frequency and the importance of the data. If necessary, it must take into account not only the need for intangibility, but also for permanent availability of given legal documents (contracts, invoices, any document considered as a proof).
- The organization of the storing method can be ranked depending on the content of the documents (text, video, image, etc.) and on their origin, status, types, etc.
- The retention period must allow for a regular cleanup of the system in order to improve the storage and develop the archives.
- The option to review or destroy the document. A storage method with reading/writing/deleting capabilities must be taken into consideration.

## **4 – Sharing documents**

The last identified step is linked to the restitution process of the documents. The distribution of the documents can be done via Internet or Intranet. There are 2 methods of transfer:

- Pull mode: it is the process of making the documents available depending on the rights of the users who view the documents repository after logging in. The documents can be viewed after a search and a selection.
- Push mode: the process of distributing and sending documents to predefined recipients.

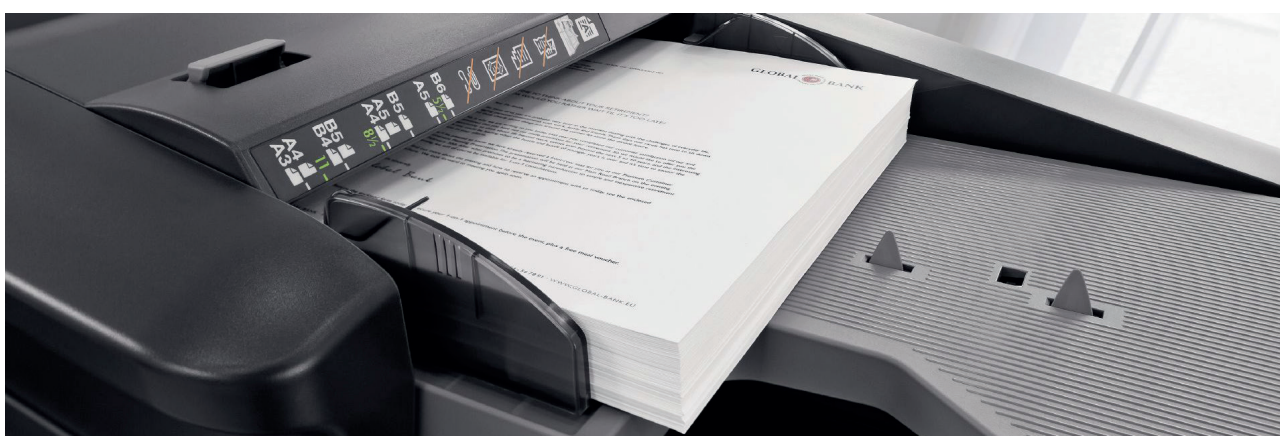
# STARTING A DMS PROJECT

**Filing digitized paper documents in a DMS (or dematerialization) solution can lead to great results in terms of productivity and cost reduction.**

A dematerialization project must never be considered as a simple transition from paper to digital medium. It is about dematerializing the processes and the whole documentary chain, from document production, document validation, document signature to document filing (from document production to document filing, including document validation and document signature).

From this principle, we can easily deduce that the more complex and time-consuming a paper process is, the more efficient the dematerialization and automation will be in terms of cost-effectiveness and productivity.

Nevertheless, before starting a hard copy documents dematerialization project, you need to ask yourself the right questions in order to properly define the goal operating process and select the right components for implementation.



- **Why digitizing original paper documents and filing them into a DMS solution?**
- **What type of paper documents does that apply to?**
- **What are the volumes that can be converted?**
- **What will be the filing and searching criteria?**
- **Who will be involved?**

In order to gain some answers, the following pages illustrate the common answers chosen by the clients who have implemented KOMI DOC solutions.

# WHY DIGITIZING ORIGINAL PAPER DOCUMENTS AND FILING THEM INTO A DMS SOLUTION?

To answer this question, here are the main benefits offered by an organized filing of digitized hard copy documents.



## ▀ Insurance against documents loss/theft/destruction

When you digitize your documents and add them into an online DMS solution, such as KOMI DOC Portal, you secure them against loss, theft or destruction (fire, flood, etc.). Having a digital copy can be a life-saver.

## ▀ Availability anywhere, at any time to all the relevant employees

When you digitize your documents and file them into your DMS solution, you make them available anywhere, at any time to all the employees involved in their processing operations.

## ▀ Elimination of paper, space gain

For some documents, there is no use keeping an original paper copy. Once these documents are digitized and filed into the DMS solution, you can then discard the paper copy and free some valuable floor space that used to be reserved to archive rooms.

## ▀ Productivity gain

Using the search by keywords functionality, you will be able to find any document in a matter of seconds, thus eliminating the time lost searching for documents in binders or storage rooms that might be far from the office (basement, cellar, etc.).

Furthermore, the digitized paper documents circulate faster between the various departments and employees, which reduce the viewing and processing delays.

## ▀ Financial gain

Using a centralized filing solution of digitized hard copy documents, you can save money on consumer goods (less paper through reduction of copies, and less ink and power used for machines and printers) and sometimes on mailing (elimination of the post costs to send documents from one to another).

# WHAT TYPE OF PAPER DOCUMENTS AND VOLUMES DOES THAT APPLY TO?

For a dematerialization project to be successful, an approach by document type should always be used, and priority must be defined according to the processing complexity and the expected gains.



As a general rule, one must identify :

- The nature of the documents to file (mail, contract, invoice, delivery slip, questionnaire)
- Their origin and delivery type (centralized, decentralized)
- Their size (A4, A3, A5, other)
- Their structure (structured, semi-structured, non-structured)

Incidentally, the documents can be filed into three categories, depending on the structure of their content:

## ▀ Structured documents

Contain information with known content and location. These include for example purchase orders, loan or credit card applications, questionnaires, statistical forms, etc.

## ▀ Semi-structured documents

Documents which contain information with known context, but unknown location. The layout of these documents is not fixed. These include for example invoices, purchase orders and delivery slips.

## ▀ Non-structured documents

Documents with unknown information layout and context. These include for example quotes and mail.

Depending on the structure of the document and the volume of documents to process, a corresponding filing method must be used

Type of document	Volume (number of documents per day)	Recommended indexation and filing technology
<b>Structured</b>	< 100	Manual mode
	> 100	Automatic document reading
<b>Semi-structured</b>	< 100	Manual mode
	> 100	Automatic document reading
<b>Non structured</b>	< 100	Manual mode
	> 100	Automatic document reading (through barcode or cover page)



# WHAT WILL BE THE FILING AND SEARCHING CRITERIA?

**The success of a dematerialization project relies heavily on the solution's capability to establish a structured and ranked filing system, all the while offering a simple and fast search functionality.**

To do so, the metadata (or indexes) associated with each type of document must be defined.

The metadata are crucial elements for the dynamic filing and searching of digitized paper documents. They are «markers» that are applied to each document in order to identify them in a unique and precise way.

When they are defined and filled in during the indexation phase, the metadata allow:

- The dynamic filing of the documents in the DMS solution (depending on the values given)
- Renaming of documents according to common and logical guidelines
- A later searching of the documents (based on this information)

For example for document of the «Supplier invoice» type, the commonly used metadata are as follows:

- «supplier name»,
- «invoice date»,
- «part number»
- «amount excl. tax»
- «amount incl. tax»

When this information is given, the filing plan in the DMS solution can be as follow:

Suppliers folder

Supplier 1

Supplier 2

Invoice\_0212012\_Supplier 2.pdf  
Invoice\_0318012\_Supplier 2.pdf

...

Supplier n°

For example for document of the «Incoming mail» type, the commonly used metadata are as follows:

- «sender»,
- «reception date»,
- «subject»,
- «recipient»,
- «priority level».

When this information is given, the filing plan in the DMS solution can be as follow:

Incoming mail

Service 1

Service 2

Mail\_02122012\_Sender 2.pdf  
Mail\_03182012\_Sender 2.pdf

...

Service n

Research possible on all the metadata filled in and all the keywords in the document

# WHO WILL BE INVOLVED?

**It is important to identify the employees who will be involved in the dematerialization process. You can thus define the people who will be responsible for the various steps of the filing of digitized paper document, raise their awareness on the subject and provide them with training on the new tools.**

The various steps of the filing of digitized paper documents are as follows:

## ▀ Preparing the documents

The first step of the process is to prepare the documents for digitization :

- Reception of documents from third-parties,
- Opening the post letters,
- Removing the staples,
- Removing the carbon copies,
- etc.

## ▀ Digitalizing the documents

The digitization of documents involves transforming a physical document (paper) into a digital file (usually a PDF). It is generally done using a scanner or a multifunction printer device

## ▀ Indexing the documents

Indexing is the description of the document and its content in order to make its use easier. There are two indexation categories:

The indexation by document type, which gives a formal description of the document using its metadata (type, author, title, source, date, etc.) and a normalized vocabulary in order to be able to use these metadata with the DMS solution's search tool.

The indexation by concept or key words. This indexation type integrates the whole content of the document as metadata in order to make the search easier.

Based on the business analysis previously done, you must define the «user tools» and «system tools» necessary to perform each step of the process. Whether they exist in the company or must be integrated, these tools usually cover three types of services:

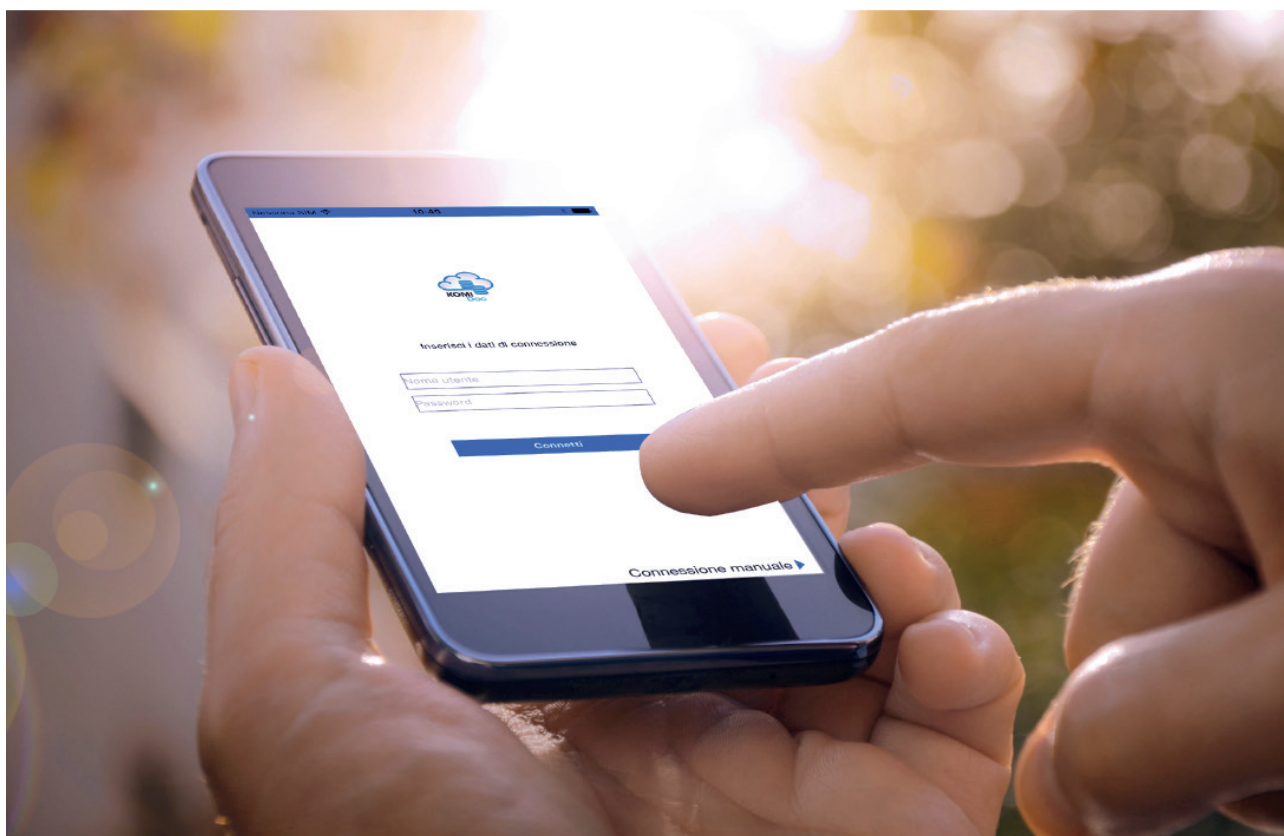
- 1) Information processing, with acquisition/creation, management/storing, exchange/sharing and distribution solutions.
- 2) Securing and legalization providing solutions for securing accesses and legalizing digital documents (retention and exchange).
- 3) Implementation and supervision allowing the execution of business process and flow processes and their supervision.

# ACHIEVING A PAPERLESS OFFICE WITH KOMI DOC

The following 7 steps will allow you to simply and rapidly transform your traditional office environment into a paperless facility, achieving higher levels of productivity, efficiency and security.

## Step 1: Acquire an KOMI DOC DMS Solution

KOMI DOC DMS solution includes all the components needed to go paperless and more.



## Step 2 : Identify your organization's critical documents

Once the KOMI DOC™ Solution ordered, you can start by identifying the documents that should be cataloged and stored in your document repository. For example, these can be sensitive HR records, financial files, or any other documents that your organization needs to search and retrieve later on.

You also need to carefully think about the way you want your document to be indexed and classify and also involve the different persons who will take part in this project.

Please refer to the “starting a DMS project” for more detailed information.



### Step 3 : Install and configure your KOMI DOC™ DMS solution

Once you purchase the commercial edition of KOMI DOC™ DMS, you will be directly supported by our certified resellers' professionals team that offer optional onsite or remote services that are customized to assist you implementing KOMI DOC™ solution according to your specific business needs.

Their staff is specialized in document management solutions, so you will save a lot of time and money in deployment, system migration, integration, and business process implementation.

### Step 4 : Scan and import your documents

The simplest way to eliminate paper documents is to scan and archive them.

These can be individual documents or entire directories that are stored in the on-premise file servers.

For entire directories of documents, we advise you to use KOMI DOC™ sync, which will enable you to bulk upload through a simple drag and drop all your documents in KOMI DOC™ Portal (the Document Management Solution) while keeping the folders and subfolders structure, previously created.

For new incoming paper documents, we advise you to scan them and then attach metadata tags to each document to be able to file them dynamically, search and retrieve them later on when needed. This task can be easily done in the Filing section of KOMI DOC™ Portal thanks to existing scanning wizards.

For existing paper documents, we advise you to scan them in bulk and to automate the filing thanks to barcode label recognition and OCR. Sort paper documents by category (invoice, contract ...), put a label with a barcode that contains the value "invoice", "contract", ... on the first page of the lot and scan them. KOMI DOC™ Scan will perform a recognition of the barcode, extract the value and file dynamically the documents in KOMI DOC™ Portal in "invoice", "contract",... subfolders. In the same time KOMI DOC™ Scan will run OCR recognition on each page of each document to enable later on a search on specific key words, contained in those documents.

### Step 5 : Take digital notes

Taking notes during meetings is part of many business professionals' normal routines. Those notes help you remember what was said and what action items came out of the meeting. Most frequently, those notes are not only for you, but for others who rely on the information.

Taking notes on paper will make you spend extra time typing them up before sending them out.

Integrating preformatted note-taking document, KOMI DOC™ will enable you to take meeting notes electronically directly from Microsoft Word and share them instantly, through your DMS meeting workspace, with relevant co-workers while allocating tasks to be performed.

KOMI DOC™ is a great way to stay organized and share information in a clear and consistent format. As a result, KOMI DOC™ puts more productive hours into your day. Because the information you gather in meetings is readily available to you, you can also make more informed decisions. And finally, the information-sharing features available in KOMI DOC™ increase the cohesiveness of your team, even when you are dispersed over different locations.

### Step 6 : Share documents with others

Paper documents usually require photocopying to be shared. Working with KOMI DOC™ DMS makes it easy to share documents electronically with colleagues and clients over a network, by email or via the Web in a controlled manner.

KOMI DOC™ DMS includes collaboration tools to allow several people to view and work on a document simultaneously, saving that trip to the printer.

### Step 7 : Approve documents through electronic workflows

Business processes typically involve approval and movement of documents from the company to third parties, from department to department inside the company, and from person to person in a department. Several persons with different roles (such as creation, review, approval, and dispatch) will have to review the document before it completes its intended purpose.

Paper-based approvals slow business to a crawl when critical documents such as suppliers' invoices and purchase orders are lost, misplaced, misrouted, or left sitting in inboxes when approvers are out of the office

By replacing your manual paper process with KOMI DOC's Electronic Workflow engine, you can take advantage of creating an electronic path for documents to follow and business rules that govern decision around the direction documents travel.

Thanks to its user-friendly workflow designer, you can set-up serial or conditional document approvals where you can designate approvers, substitute approvers, document types, and approval deadlines.

Once done, the system sends approvers e-mail notifications and "sms like" to mobile device of pending approvals, along with links to documents that need approval. Then, involved user can simply approve or reject documents with a single click and add explanatory comments before forwarding the document to the next in line approver.

You can also easily link approval documents to related purchase and sales order documents using the KOMI DOC™ Link feature to provide greater information.

As a workflow supervisor, you get a full traceability and control over document approvals thanks to the unified view that shows where documents are in the process and if users are late or not. Simple to configure and to use, KOMI DOC™ workflow engine helps you eliminating paper transaction while improving time needed to perform individual task and monitoring of documents. It gives you the ability to access, organize, control and distribute increasing volumes of information securely and efficiently across your different users and groups, for approval or review.

# IMPROVING DOCUMENT SECURITY WITH KOMI DOC™

With KOMI DOC™ DMS, your data, including confidential customer information, is protected. It helps you setting up standardized practices that ensure security and safety of your documents with the dual objectives of preventing unauthorized access to documents and allowing recovery from physical damage or loss of documents.

## ▀ Improved confidentiality

In a paper-based system, documents are stored in filing cabinets and highly sensitive documents can be kept under lock. But in general documents have the same level of security i.e. if you have access to the cabinet you have access to all items in it.

KOMI DOC™ DMS provides better, more flexible control over sensitive documents.

First it allows access to documents to be controlled at the folder level for different groups and individuals. For example, employees can be categorized into different groups, and each group can have different access rights and permissions.

Plus, KOMI DOC™ Portal DMS also provides an audit trail of who viewed an item, when or who modified an item and when, which is difficult to maintain with paper based systems.

KOMI DOC™ DMS also removes the possibility of having confidential material or trade secrets lying around unattended in an office.

## ▀ Reduce drastically the loss of files

Lost documents are expensive and time-consuming to replace. Within KOMI DOC™ DMS, scanned paper documents remain centrally stored when being viewed, so none are lost or misplaced.

New documents are less likely to be incorrectly filed and even if incorrectly stored can be quickly and easily found and moved via the full-text searching mechanisms.

## ▀ Disaster recovery

KOMI DOC™ DMS provides an easy way to back-up documents for offsite storage and disaster recovery providing failsafe archives and an effective disaster recovery strategy. Paper is a bulky and expensive way to back-up records and is vulnerable to fire, flood, vandalism, theft and other threats.

## ▀ Security Benefits of Cloud Computing

There are various benefits of storing business files in the cloud with KOMI DOC™.

Check the following chart to get a good overview of what Cloud hosting can offer versus on-premise solution.

# CLOUD VS ON-PREMISE SECURITY COMPARISON

	Cloud Security	On-Premise Security
DEPLOYMENT	Fast, simple, deployment. A cloud requires only a few details (such as your MX record or web proxy) to begin filtering your email or Web traffic.	Hardware must be accommodated, deployed, software installed and configured to work within your environment.
CAPITAL EXPENDITURE	No upfront capital expenditure.	Considerable upfront costs to purchase licenses and hardware.
ENTERPRISE SECURITY	Best of Breed security through economies of scale. All customers, including small businesses, receive professional security services supported by expert technicians.	Large organizations need experienced in-house staff to manage security systems and optimize them for best performance. Small businesses typically can't afford or don't have the resources to support enterprise level security.
MOBILE USERS	Many providers can easily accommodate security for remote or mobile users.	Most on-premise solutions cannot support security for mobile users or require expensive additional elements over and above normal costs. This introduces yet another IT component that needs to be supported and maintained
SCALABILITY	Flexible ability to add users when required. Capacity to support additional users is automatically provided by the provider.	Scalability requires purchasing additional hardware and licensing. Some on-premise solutions don't support multiserver installations or additional costs are applied to support this capability. Requires that you guess your future needs rather than allowing you to grow and remain flexible.
COST OF OWNERSHIP	Fixed, low cost subscription that allows you to budget predictably.	On top of hardware and license costs come ongoing administration costs for headcount, training staff, and the need to purchase additional hardware if your usage demands ever change.
BANDWIDTH	Spam and Web threats are blocked in the cloud, saving you bandwidth and server resources	Some solutions block spam at the SMTP receiver level, resulting in partial bandwidth savings. But, most filter spam out at your email gateway or download web content to scan and filter it providing little additional saving on bandwidth.
ADMINISTRATION	Minimal daily administration requirements. Once tuned for your organization, daily administration and routine maintenance are performed by the provider.	Substantial daily administration, typically requiring dedicated IT resources. Servers must be monitored and managed. Updates downloaded and applied during carefully scheduled periods. All security functions must be supported and monitored internally.
SECURITY	The service is constantly updated and controlled by the provider. With a larger pool of collective data and security intelligence the net benefit is a greater level of security. A threat targeted at one organization means that all organizations benefit from this protection.	On-premise solutions must be frequently updated and upgraded to remain effective against the latest security threats. As is often the case, critical security measures are only implemented in reaction to a threat rather than proactively before the threat is encountered.

**If document security is one of your concerns then there is no better place to store them than in a KOMI DOC secure cloud environment.**

KOMI DOC™ Cloud hosting facilities rely on the security features of Datacenter carrier class Infrastructures to protect our customers' data.



- ▀ Datacenter carrier class Infrastructures which are ISO 27001 certified and also designed to comply with ISO 9001:2008 certifications for quality management.
- ▀ Controlled data centers around the world used by KOMI DOC™ are secured with a variety of physical barriers to prevent unauthorized access.
- ▀ Data privacy is performed through the Safe Harbor compliancy.
- ▀ Communication between your browser and the KOMI DOC™ DMS platform is secured using 128-bit Secure Socket Layer (SSL). All connections are protected with authentication and authorization. All user operations are logged along with IP addresses and other session details.
- ▀ Intrusion prevention is done through sophisticated firewalls and UTMs by integrating a powerful next-generation firewall appliance with scalable cloud content security
- ▀ Regular replication and backups: We replicate data changes daily. Backups are duplicated and stored in 2 sites, which guarantees 99.99 % durability and 99.99% availability over a given year. Backup storage is designed to survive the concurrent loss of data in two facilities.



# CONCLUSION

The unfortunate reality is that we all face situations where paper printouts are unavoidable or we work with partners and clients who require them. While the paperless society remains elusive, adopting KOMI DOC™ Solution and internal processes that emphasize digitization will help you get closer to that ideal while improving staff productivity and reducing operational costs.



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