

CNG Software

Remote Workers and Document Management

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Introduction

In 1998 Merrill Lynch completed a study which concluded an estimated 80% of all usable business information originates in unstructured form. In other words 80% of business information resides in documents. Today, the internet has made it possible to access information from coffee shops and airports anywhere in the world. However, access to documents remains a barrier to many remote workers and travelers who rely on people in the office to retrieve files from file cabinets and fax or email those documents. This inefficient approach ties up people chasing paper and sending and waiting for emails instead of helping customers and generating revenue. Programs like Citrix's GoToMyPC solve the issue by providing access to a PC from anywhere. And other programs like Microsoft SharePoint allow access to shared files on a server. Yet these programs lack essential Document Management functionality that most businesses require to effectively create, manage, audit and retain business documents in a company-wide, controlled, remotely accessible filing structure.

The purpose of this paper is to discuss key considerations for companies who have a need for employees or customers to access documents from remote locations. Many companies today have employees that work exclusively or part-time from an office at home. These workers, as well as workers who travel need to be able to efficiently and securely access and work with documents and document information. Some businesses also have a need to permit their customers to access certain documents on a "self-service" basis. Companies who provide workers with secure access to documentation are more efficient, provide better customer service and are better able to control cost compared to traditional paper-based and scattered electronic file folder approaches.

Some of the key considerations discussed in this paper are:

- Centralization of documents
- Standardization of documents
- Remote worker roles
- Customer document portal

Current Conditions

A recent Gartner Dataquest study reports that 25% of U.S. employees worked from home at least once per week in 2007. The way companies deal with remote workers is more than likely changing very rapidly. A number of business realities are behind the growth of the remote workforce. First and foremost is the fact that remote workers tend to be more productive than their office-bound

counterparts. A study done by American Express showed that remote workers are 30 – 40% more productive. Of course, not every job can be done remotely. And even those people who do work remotely have found that they need to be in the office at least a couple of times a month to meet face-to-face with co-workers and build relationships. But that does not diminish the growing trend of people working remotely.

There are multiple factors involved with the transition to a remote work force. Some of these are:

- Rising fuel and transportation costs -related cultural desire for greener business
- Rising cost of facilities – commercial space and infrastructure costs are increasing
- Competition for workers – ability to work remotely is a benefit to most prospective employees
- Improved efficiency and reduced costs

With volatile fuel prices, many companies are implementing flexible work-from-home policies and providing the tools and technology to enable telecommuting.

Approaches to Providing Remote Access to Documents

Providing remote access to documents can be as simple as setting up a VPN (Virtual Private Network) and giving access to a server where documents are stored. Many companies already have this type of system in place today. Remote workers connect to a server and get to documents they need. Most companies start out by putting these documents into a filing structure using the Windows Explorer filing tree method. For example, on the server drive there is a folder called Clients which contains a folder for each client. Each client folder can contain subfolders and documents. The advantage to this approach is that it is an inexpensive way to get started with basic remote access and it relies on common and relatively inexpensive Microsoft technology. The downfalls to this approach are the lack of control and problematic scalability. Controlling the filing structure and how people go about adding and naming documents, even editing and deleting documents becomes a major challenge with this approach. And as the number of people using the system increases, this challenge grows. Without strong controls on the filing structure and user rights within the filing structure, the risk of losing or inadvertently deleting documents is very high.

Now extend this approach to document provisioning for customers. Many businesses store customer documentation that is occasionally required by the customer. The customer calls or emails to request certain documents. An employee retrieves these documents from a file cabinet or from a computer and faxes or scans and emails or sometimes even ships hardcopies to the customer. What if a customer could access their documents on a “self-service” basis? The customer wins because they don’t have to wait to get what they need and the company wins twice. First, by saving on time spent providing this service to the customer and second, by providing better service to the customer. The challenge here is with security. How is a secure connection provided for the customer to retrieve documents? The VPN approach is generally not acceptable in this case because essentially the customer gains access to the server and network. The best solution seems to lie in what is known as a Customer Document Portal. A portal provides a way for remote system users to access information. Specifically, a Document

Management Portal allow remote workers and customers to access only the documents they have rights to access and typically permits View-Only capabilities. Portals are typically accessed via a web-browser over the internet so it is easy to support many remote people accessing a central document repository.

If the needs mentioned above align with the document strategy for your company, then the question is “where do we go from here?” The following information provides some of the key steps toward enabling remote access to documents for workers and customers.

Document Centralization

It is important for workers to have the ability to go to one “place” to work with the documents they need to do their job. This means that the company needs to find a way to centralize document storage into one or more electronic document repositories. Those repositories may be located on the internal network or may be hosted externally. The key here is to tear down the small document silos that exist and start moving toward a centralized storage approach. Some of these mini-silos include file cabinets, local hard drives, USB drives, shared drives and servers where different workgroups in the organization store documents.

Document Standardization

As a central repository is built and deployed, plan on providing remote access. It is also important to think about standardizing the way documents are named (indexed), their storage format, sensitivity levels, retention policies and whether or not they will be processed in some type of workflow. By pre-defining these variables in a template for each type of document, a standardized way of filing documents is provided. Templates also save time by creating document descriptions as documents are filed. This way naming conventions for documents will be applied programmatically by people who scan, create and file documents. Another significant advantage of using templates to name documents is realized every time workers search for and retrieve a document. People don’t have to guess how a file might have been named, because document naming has been standardized.

Beyond the standardization of naming, there are other document variables that should be standardized to better support both remote and on-site workers. Document format is most important to consider for scanned images. The most commonly used formats for images are TIF and PDF. Consideration should be given to the best format for use in the organization. Another variable is sensitivity. Who will have the right to view, export, or delete specific documents? A document’s sensitivity level should determine which users have those rights. Roles and rights management are discussed in more detail in the following section. Retention is another document variable that should be standardized. If your industry is regulated, this isn’t optional. As remote workers’ access to documents is enabled, having retention policies applied by the document management software provides an essential insurance policy against deletion of documents that must be retained. The last variable, but maybe the most important is the standardization of the workflow process necessary for particular type of document to follow. For example, an invoice should be routed through certain channels depending on the amount or the vendor. A time-off request needs to be routed a supervisor and then back the

requesting employee. Most documents have some type of associated workflow process that needs to be initiated consistently and automatically. All of these document variables can be standardized via templates to optimize efficiency and control of the documents.

Roles and Rights Management

A company's documents contain the information lifeblood that is vital to keep the business running. Customer, employee and partner information contained in documents is typically considered to be extremely valuable. In fact most of these documents in their paper form are kept locked up in file cabinets, which are in turn often locked up in a file room.

In order to put together the ideal document management solution for remote workers first think about what workers need to do with documents to perform their job effectively. Some workers only need to view and occasionally print documents that pertain to their specific role. Others workers may only need to scan and file documents. And others may just need to be able to approve documents that have been routed to them in workflow. One example might be the boss approving invoices for payment. The boss will most likely not be scanning and routing invoices, but he should be able to log into the system from the Executive Lounge at the airport and review and approve or reject invoices and other documents that require attention.

So part of the planning process for rolling out document management to remote workers should be an audit of workers and roles as they pertain to documents. Think about which workers need to Create, Edit, Delete and View documents and document information. One approach is to give everyone full access to documents. This is a reasonable approach for small and growing companies. It puts the most power and responsibility in to the hands of the workers. Some businesses have a need to manage workers' document rights down to the individual document level. This tight approach to controlling document security has a place in businesses like healthcare and financial services where documentation is heavily regulated. Most businesses probably have the need for an approach that is balanced somewhere in the middle, with security in place to control sensitive documents, but at the same time enabling workers, whether remote or in the office to do their job efficiently.

Customer Document Portal

The customer document portal, discussed earlier, relies on the ability to combine all of the above elements of centralization, standardization, and rights management to allow the creation of a repository workers and customers can access. Employees will need to have rights to perform their roles. However, customers will typically only require the ability to retrieve their documents. So centralizing documents allows customers and workers access to the same document repository, standardization ensures efficient filing and retrieval for workers and retrieval only for customers. And rights management controls what customers will be able to see when they access the repository. To further simplify the document retrieval process for customers and to make it easier and more cost effective to provide customer access to documents, a web-based interface is ideal. A customer can securely log in to the repository via their web-browser and will be able to quickly find their documents. Customers should

be able to print copies of their own documents but they should not be able to edit documents you are storing for them.

This type of self-service document portal is useful in many applications beyond providing self-service access to documents for customers. Broker Dealers can provide their reps with access to their client documents. Companies can provide access to remote project managers to access their project documents. A physician can review a patient chart via a web browser from across the globe. And there are many more examples.

Conclusion

Providing remote access to documents for workers and customers will make people more productive, allowing your business to compete and grow while the competition struggles to keep up. In pursuing a document management platform it is critical to spend time looking at documents and worker roles to make sure that the system as implemented matches or exceeds the requirements needed. Most importantly, document these requirements and use them as a guide to evaluating potential solutions. Once the solution that best meets your needs is found, use these requirements to drive the project plan to success.

Appendix 1. Terminology

VPN - A **virtual private network (VPN)** is a [computer network](#) in which some of the [links](#) between nodes are carried by [open connections](#) or [virtual circuits](#) in some larger network (e.g., the [Internet](#)) instead of by physical wires. The link-layer protocols of the virtual network are said to be [tunneled](#) through the larger network when this is the case. One common application is secure communications through the public Internet, but a VPN need not have explicit security features, such as authentication or content encryption. (http://en.wikipedia.org/wiki/Virtual_private_network)

GoToMyPC – <http://www.gotomypc.com>

TIF - **Tagged Image File Format** (abbreviated **TIFF**) is a file format for storing [images](#), including [photographs](#) and [line art](#). It is now under the control of [Adobe Systems](#). Originally created by the company [Aldus](#)^[1] for use with what was then called "desktop publishing", the TIFF format is widely supported by image-manipulation applications, by publishing and page layout applications, by [scanning](#), [faxing](#), [word processing](#), [optical character recognition](#) and other applications.^[2] Adobe Systems, which acquired Aldus, now holds the copyright to the TIFF specification. TIFF has not had a major update since 1992, though several Aldus/Adobe technical notes have been published with minor extensions to the format, and several specifications, including [TIFF/EP](#), have been based on the TIFF 6.0 specification. <http://en.wikipedia.org/wiki/TIFF>

PDF - **Portable Document Format (PDF)** is a [file format](#) created by [Adobe Systems](#) in 1993 for document exchange. PDF is used for representing two-dimensional documents in a manner **independent of the application software, hardware, and operating system.**^[1] Each PDF file encapsulates a complete description of a fixed-layout 2-D document (and, with Acrobat 3-D, embedded 3-D documents) that includes the text, fonts, images, and 2-D [vector graphics](#) which comprise the documents.

<http://en.wikipedia.org/wiki/Pdf>