Digital Dusting

Spring Cleaning for Network Drives

Blake E. Richardson, CRM, CIP

Spring is the traditional time to clear out clutter and deep clean. For organizations, that should include a thorough clean-up of network drives, where they are sure to find a lot of "digital dust" – which might be thought of as invisible electronic matter that shrouds digital files stored on those drives. Digital dust results in electronic clutter, employee frustration, the need to purchase additional storage space, and increased organizational risks.

Obviously, digital dust does not actually exist. However, the effects of improper management of electronic files on network drives are all too real. Over the past decade, the volume of digital content has exploded. According to EMC's 2011 electronic growth study, it is estimated that the world's electronic information is doubling every two years.

The majority of the volume is *unstructured information* – such as spreadsheets, word processing documents, e-mail, and image formats like PDFs and tiff files – which in many cases finds its way onto company network drives where it collects the figurative digital dust.

Regardless of the size or nature of an organization, its employees receive and create electronic information, and in many cases they store it on network drives. The absence of organizational guidance and controls in this area results in network and hard drives becoming digital graveyards that impede risk management efforts, corporate decision making, e-discovery, and operational efficiency.

The reality is that most organizations – even companies that have implemented enterprise content management or document management applications – still continue to rely heavily on the use of network drives. For many organizations, the use of network drives is a necessity; it represents the only logical choice of repository for the storage of large amounts of unstructured data.

Understanding Network Drives

Since the use of network drives remains prevalent, it is important to understand their characteristics and limitations in order to properly manage their use, maximize their potential, and avoid the digital dust effect.

Folder Structure

Network drives contain folders created to segregate organizational departments or operations located on the same network drive. In most cases, additional subfolders are created under the primary folder to group content of a similar nature. Security settings can be configured to grant or deny access to certain folders or prevent employees from creating new primary or subfolders.

Naming Conventions

If an employee has authorization privileges to create new subfolders, the network drive does not place any restrictions on the naming convention used to label the folder.

Duplication

Network drives have limited ability to prevent the storing of duplicate files. Network drives can detect duplication only if an employee is attempting to save a file using a file name that already exists in the same folder.

However, network drives do not prevent files with the same name from being stored in different subfolders.

Versioning

Network drives do not facilitate the automated versioning of files. If a stored file is modified, the employee has to reflect the new version by manually renaming the file with a new version number or combination of new version number and date of modification. However, by assigning a new name to the file, the former file still exists unless the employee deletes the former file.

Metadata

Unlike enterprise content management or document management software applications that allow users to create and assign metadata such as multiple keyword values to content, the only metadata an employee can assign to a file in a network drive environment is the file name.

Searching

The absence of additional assigned metadata limits network drive searching capabilities. Network drives allow searching by folder, all or part of the file name, date of file, size of file, phrase or words contained in the file, and modification date.

Retention Management

Network drives do not have automated retention management capabilities. Files stored on network drives have to be manually deleted if they no longer need to be retained.

One Solution for Limitations

Most enterprise content management and document management software applications contain functionality that resolves the aforementioned limitations of network drives.

Bringing Structure to Network Drives

One of the primary causes of digital dust is the lack of adequate network drive folder structures. Saving files to network drives is convenient – a few clicks of the mouse, some typing, and a file is stored. However, without structure, that convenience can be a detriment.

Imagine the equivalent scenario for a physical document that needs to be filed if there is only a single file cabinet drawer and one large hanging folder to receive it. Filing the document is very convenient because there is only one filing option.

But imagine that after several months, when hundreds or thousands of documents have been added to that single hanging folder, that specific document needs to be retrieved. Convenience no longer exists. Attempting to locate that document amongst all of those stored in that one hanging folder will take a lot of time and effort. The convenience of filing that document, then, will result in diminished efficiency, customer service, and decision making.

Without the creation of a proper folder and subfolder structure, employees attempting to locate a specific file will be searching for a needle in an electronic haystack.

The same scenario holds true for electronic files stored on network drives. Without the creation of a proper folder and subfolder structure, employees attempting to locate a specific file will be searching for a needle in an electronic haystack.

Folders

Since network drive primary folders are typically established and configured for each department sharing the drive, the following information will address how to develop an effective folder structure at the departmental level.

The first step in creating a network drive folder structure is to appoint departmental representatives who have a proficient knowledge of the department's business processes to determine what types of unstructured content are created and received in support of the functions. This step excludes *structured content,* which resides in database-oriented applications such as enterprise resource planning systems.

Once the unstructured content has been identified, the department representatives should determine the types of information that will be stored on the network drive. In most cases, the folder structure will comprise the primary folder (department name) plus several subfolders that represent the major categories of departmental functions.

Within each subfolder, it is common to add additional subfolders that allow for further filing and searching refinement. Figure 1 on page 44 illustrates an inefficient network drive folder structure. In this example, the primary folder is HR. However, rather than having additional subfolders pertaining to major department functions, all files are saved to the primary folder, making filing easy, but impeding subsequent searching.

Figure 2 on page 46 illustrates an enhanced and efficient folder structure. Though it takes an initial investment of time and resources to create an effective folder structure, the return on the investment can be measured in quicker retrieval times and reductions in misfiled and un-locatable information.

Once an effective departmental folder structure has been created, it is important to establish controls. It is recommended that an employee (and a backup) be designated to monitor and control the establishment of new folders in the directory. If feasible, only a limited number of employees should be able to create new folders. This approach helps ensure that the integrity of the folder structure is maintained. If a new folder needs to be created, it is advisable to have the request approved by department management or its designee.

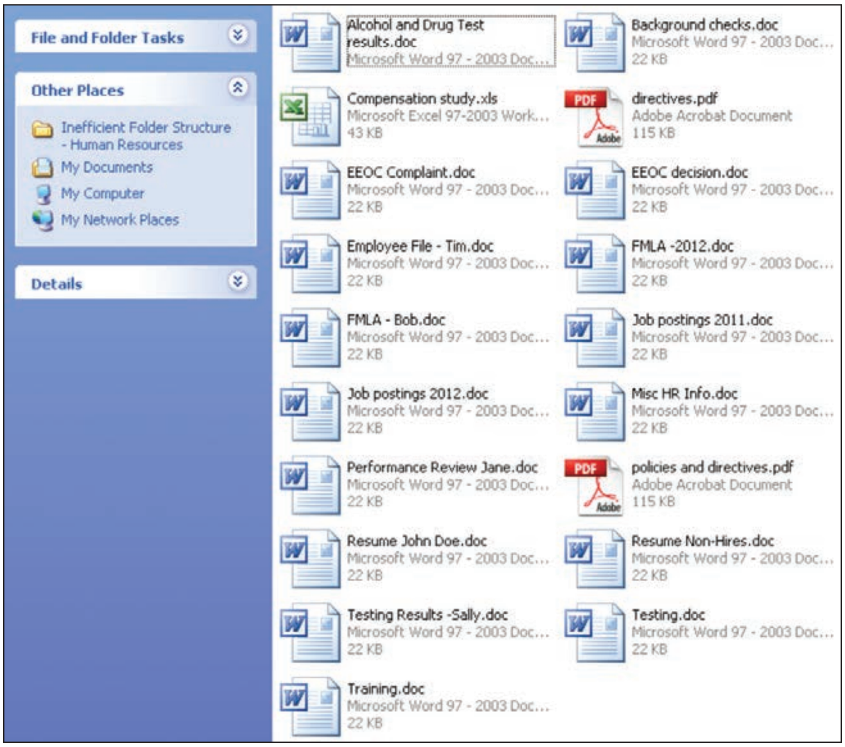
Naming Conventions

To complement and increase the effectiveness of folder structures, it is important to establish naming conventions for folders and files. A good folder structure will fail to serve its purpose if the employees using it do not understand what the folders represent. Therefore, as part of the folder structure development process, there should be a consensus among employees as to folder naming.

Folders should be labeled in a manner that represents the logical name of a departmental process or function. Folder names should not be cryptic, include acronyms, or be named in a fashion recognizable only to department employees.

In some cases, it may be appropriate to include as part of the folder name the retention period of the files located within the folder. For example, a folder that contains invoices may be labeled "Invoices - 7 Years." This will assist employees in the proper deletion of content and prevent the accumulation of information that is no longer needed.

Folder names can also be subsequently modified to facilitate legal holds. If the contents of a folder need to be held, the folder name can be modified to include the words "Legal Hold (Do Not Delete)" until the hold is rescinded. It is important to remember that in the event of e-discovery, audits, or inquiries, other departments may need access to the folders and files. Therefore, the naming conventions used should be recognizable by other employees.



Alcohol and Drug Test results.doc
Microsoft Word 97 - 2003 Doc...

Background checks.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Compensation study.xls
Microsoft Excel 97-2003 Work...
43 KB

directives.pdf
Adobe Acrobat Document
115 KB

EEOC Complaint.doc
Microsoft Word 97 - 2003 Doc...
22 KB

EEOC decision.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Employee File - Tim.doc
Microsoft Word 97 - 2003 Doc...
22 KB

FMLA -2012.doc
Microsoft Word 97 - 2003 Doc...
22 KB

FMLA - Bob.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Job postings 2011.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Job postings 2012.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Misc HR Info.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Performance Review Jane.doc
Microsoft Word 97 - 2003 Doc...
22 KB

policies and directives.pdf
Adobe Acrobat Document
115 KB

Resume John Doe.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Resume Non-Hires.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Testing Results -Sally.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Testing.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Training.doc
Microsoft Word 97 - 2003 Doc...
22 KB

Figure 1: Inefficent Folder Structure – Human Resources

In addition to establishing standards for properly naming folders, there should be standards developed for naming files. The best folder structures will meet their demise if the files contained in the folders are not properly named. Files should also be named in a logical manner, avoiding acronyms and abbreviations.

The litmus test for naming files should be that any company employee could read the file name and understand the nature of the file without having to open it. If an employee has to open several files before he or she finds the one needed, there is a good chance that files are not being properly named.

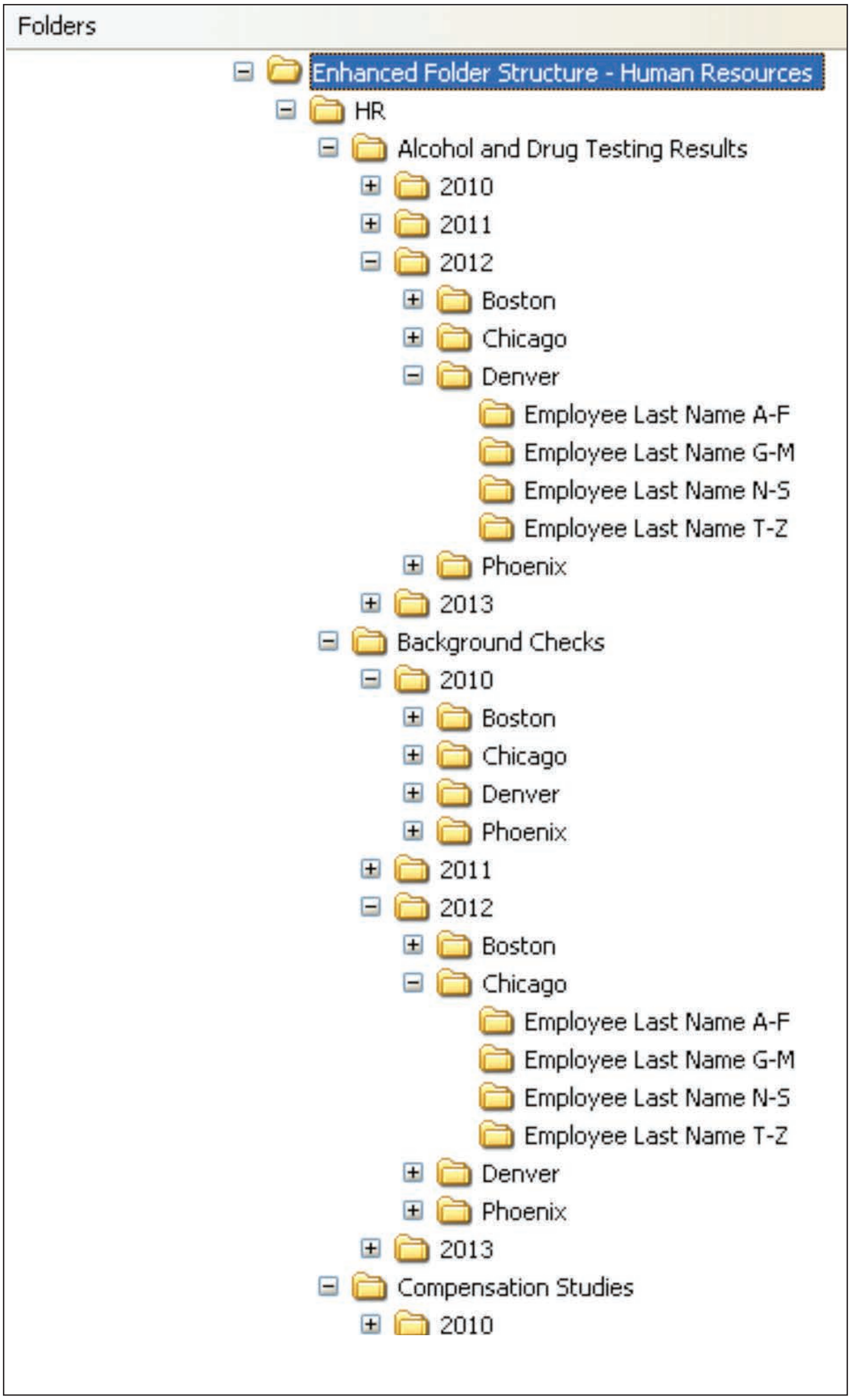
Naming standards may include a consistent file prefix or suffix such as the date the file is stored, employee last name, or vendor company name.

Regardless of the standard implemented, it is important that it be followed. Employees who have been designated to monitor and control the creation of new folders can also periodically review file names to determine if the standards are being followed.

Dusting Your Drives

Most organizations have been using network drives for an extended period of time – meaning the digital dust storm most likely has already occurred. Tens or hundreds of thousands of files that no longer need to be retained are cluttering the folders, the employees who saved the files may no longer be with the organization, and the digital dust is continuing to collect.

The review should serve two purposes: deleting information that is no longer needed and – just as important – restructuring and renaming folders and renaming files, if needed.



```
Folders
⊟ Enhanced Folder Structure - Human Resources
  ⊟ HR
    ⊟ Alcohol and Drug Testing Results
      ⊞ 2010
      ⊞ 2011
      ⊟ 2012
        ⊞ Boston
        ⊞ Chicago
        ⊟ Denver
            Employee Last Name A-F
            Employee Last Name G-M
            Employee Last Name N-S
            Employee Last Name T-Z
        ⊞ Phoenix
      ⊞ 2013
    ⊟ Background Checks
      ⊟ 2010
        ⊞ Boston
        ⊞ Chicago
        ⊞ Denver
        ⊞ Phoenix
      ⊞ 2011
      ⊟ 2012
        ⊞ Boston
        ⊟ Chicago
            Employee Last Name A-F
            Employee Last Name G-M
            Employee Last Name N-S
            Employee Last Name T-Z
        ⊞ Denver
        ⊞ Phoenix
      ⊞ 2013
    ⊟ Compensation Studies
      ⊞ 2010
```

Figure 2: Enhanced Folder Structure – Human Resources

Understanding how to create an effective folder structure and naming convention is a great start. However, most organizations are affected by years of improper network drive management. To dust your drives requires a manual file review, which can be very labor-intensive, or it may require acquiring and implementing software targeted for this purpose.

Manual Review

The file review involves departmental employees manually reviewing all files and determining whether they need to be retained or deleted. However, it is vital that before and during this process that all employees review the department's retention schedule and applicable legal and tax holds. This will help ensure that files that still need to be retained and content relevant to holds are not deleted.

Computer operating systems can assist during the review process. Most systems allow users to view the date a file was created, last modified, and accessed. For non-record content, an organization may decide that files that have not been modified or accessed in the past three years should be deleted. If the file constitutes an official company record, then the record retention schedule will dictate whether the file can be deleted.

Computer-Assisted Review

Software applications can be used in lieu of a manual review. Software referred to as "index and classification management" can be installed that collects information about network drive files and presents back to the user what content may be eligible to be deleted. These systems can detect duplicate or near-duplicate files, allowing the employee to decide what files should be deleted.

Keeping Drives Clean

Regardless of the dusting method employed, it will take time to clean up years of improper network drive use. Once the organization's drives have been cleaned and controls have been established, employees will be able to more efficiently file and retrieve content. Keeping the digital dust under control with subsequent annual reviews and cleanings will be light housework by comparison! **END**

Blake Richardson, CRM, CIP, can be contacted at titansfan100@gmail.com. *See his bio on page 47.*