

Tape Restoration & Processing in Electronic Discovery

Smart Strategies for Success in Litigation & Compliance

Michael Daniec, President, National Data Conversion

Table Of Contents

Executive Summary	3
Legal Considerations Associated with Tape Restoration	4
Traditional Barriers to Execution	5
Tape Processing Steps.....	7
Smart Restoration-Strategies for Success	9
Why Tape Restoration is Not Easy.....	12
In-House or Outsource?	16
How to Select a Vendor Partner	19
What NDC Brings to the Table	20
About the Author	21

Executive Summary

As the new FRCP (Federal Rules of Civil Procedure), due to be implemented in 2006, codify and recent case law plentifully illustrates, electronic discovery has take center stage and encompasses every form of ESI (Electronically Stored Information). Many litigants, and even regulatory agencies, now focus only on electronic documents and emails in particular. The stakes associated with electronic discovery have increased accordingly with fines and sanctions hitting both front page news and shareholder value.

In addition, the burden has shifted onto the producing party to identify and justify any potentially "inaccessible" sources of evidence at the very front end of litigation onset. As the courts and the legal community ramp up the learning curve of electronic discovery the definition of "inaccessible" becomes increasingly problematic. Once the safe harbor of ingenious litigants, it no longer offers the protection it once afforded. The risks are rising rapidly as the courts become less tolerant of any delays and errors in the production process.

Backup tapes have played a prominent role in courtroom successes and failures. In most large scale litigation they represent the most productive, sometimes the only, source of relevant evidence. As such, for long the bane of the legal community due to the long held prejudices that they are problematic, time consuming and costly to deal with, backup tapes look to become the new open game in the discovery process.

In practice, in the largest civil litigations, backup tapes typically provide the most substantive and therefore costly source of discovery. Dealing effectively with backup tapes, then, becomes a critical component of cost management in the discovery cycle.

In addition, as the vendor community continually evolves its capabilities and toolsets, lowering the traditional barriers to discovery from backup tapes, reducing the costs, time and hassles, this area of discovery undergoes increasingly skeptical scrutiny.

In fact, effective tape processing, can now become one of the most powerful tools for reducing the overall scope and costs of discovery and smart litigants are leveraging this as a powerful competitive weapon.

Here we show you how you too can gain the advantage by including effective tape restoration and processing in your litigation strategy. Our focus will be how to deal with tapes in the most effective manner to realize the greatest potential cost savings.

Legal Considerations

- **Source of evidence**
- **Defensible**
- **Documented**
- **Chain of custody**
- **Integrity**
- **Cost control**

In a simplified view, electronic discovery typically consists of culling data from either live systems or backup tapes. Live systems require specific forensic collection techniques and involve various issues such as avoiding disruption of mission critical systems, ensuring no spoliation occurs etc.

Data sets from on-line storage typically span limited time frames as most computer systems are administered to store on-line only what is considered to be germane to the on-going operations of a firm. Even if a firm does not have an official records retention, and the associated records deletion, policy, common sense and practical realities, such as storage costs, dictate that live systems be pruned periodically of older, irrelevant data.

Tape backups, on the other hand, often represent the most fecund and, many times, the only possible source for historical data. Most civil litigations, particularly some of the biggest, involve actions that occurred some time in the past, on either side of the case. The simple truth is that it is likely that the evidence you are seeking may not exist any longer on any live system(s). Thus, if you are looking for evidence, tape backups are the place to look.

However, tape processing for litigation, or compliance, related discovery engenders considerations above and beyond what standard tape restoration may encompass in normal operational circumstances. Simply put, tape processing in a litigation context needs to be legally defensible in a court of law and withstand judicial scrutiny. This places additional burdens on top of the traditional technical challenges that tape restoration represents. In order to assure the integrity and defensibility of the process in court, tape processing needs to follow accepted evidence handling protocols such as chain of custody tracking. It also needs to be transparent, consistent and fully documented. Since the traditional legal practice is to attack the process if you can't dispute the results, you need to ensure that the process will bear up under such examination.

In addition, the legal industry faces unprecedented challenges in attempting to control the rising costs of litigation. The explosion of electronic documents in business and the corresponding, and ever increasing, mass of electronic discovery associated with litigation have placed the spotlight, within the legal industry, on finding the most effective means of reducing costs associated with the discovery phase of litigation.

Although the review phase is receiving a lot of attention because of the high cost on a per document (or any measurable unit) of the human element associated with review, the smart bet is that the "first mile", the collection and initial processing, is the foremost place to look for cost savings. The logic behind this is straightforward. Any reduction of discoverable material in the initial phases of the process has a percolating and multiplier effect on any feasible costs savings associated with any subsequent work. In other words, the earlier and the more you can narrow down and reduce the amount of material that needs to undergo any subsequent steps, the better off you are, from a cost, time and scope of work perspective.

Viewed from another perspective, the costs per any measurable quantity of data (such as a Gigabyte) to be processed escalate the further downstream you go in the processing cycle. It costs less to process a GB of data in the very first steps of the process i.e. the collection and processing than any subsequent processing steps such as review.

Traditional Barriers

- **Familiarity**
- **Cost**
- **Time**
- **Judicial scrutiny**
- **Complexity & hassles**
- **High volumes**
- **Technical challenges**

It is not surprising that tapes have been held in such poor esteem by so many in the legal community. For a long time, as experience has taught, tapes have, in fact, been difficult to work with, full of surprises and very expensive to process.

In addition, the legal community, which is only slowly responding to the challenges presented by eDiscovery in general, found a quicker comfort level with disk based discovery, but lagged significantly in inching up the learning curve on tapes. After all, every attorney or judge uses a computer these days and knows what a disk is. How many of them have ever dealt with tapes on a daily basis or have ever performed a backup to tape? And so, they have had little practical experience with tape backups. In fact, tape backups are not something even an advanced personal computer user ever faces. Even the law enforcement community, on the average, knows more about disks than tape backups.

In short, tapes represent the last frontier, the most unknown (until the next technology comes along) and scariest of all the sources of evidence that an attorney has to deal with. Not knowing how to approach tapes, dependant on hardly understandable IT experts and jargon, skeptical of the processes and results and facing little understood costs, attorneys have readily placed tapes in the "inaccessible" category to quickly rid themselves of the responsibility of having to deal with them.

Here are some of the common complaints, and misconceptions, about tapes:

- they are difficult to work with
- they are very expensive to process
- they take a very long time to process
- they do not last
- not everything on tapes is recoverable
- tapes are not relevant
- they are too much hassle
- disaster recovery tapes are a special animal
- why tapes?
- lack of well understood best practices

Many of the above perceptions were true some time ago and were formed from bitter experience. However, the world of tapes has advanced, just like all aspects of technology, and it is time to challenge this long standing bias. A case can now be made that tape backup processing, as represented by the state of the art capabilities of vendors such as NDC, need not suffer from the above limitations. In fact, it can become a powerful competitive weapon for streamlining the discovery process and minimizing costs.

One of the clearest examples of this bias against tapes, is represented by the frequent labeling of tapes as "disaster recovery" backups and, therefore, somehow unfit for discovery. This comes as a surprise to most IT personnel who would have a hard time differentiating backups created for "disaster recovery" vs any other purpose. To tape restoration specialists, whether the backup was made for disaster recovery purposes or any other purpose has no practical impact on the restoration process. However, many attorneys still try to find comfort in that designation, hoping in this fashion to make tape backups into a magical special animal immune from discovery. Unfortunately, the courts and their opponents, increasingly less frequently share this view.

For all of that, one must clearly understand that tape restoration in the electronic discovery context is still a very different proposition than normal, operationally dictated restoration. The consists of a number of elements, summarized as follows:

- high volumes and tight deadlines pose a unique urgency, with potentially catastrophic consequences to failure, and can be highly disruptive of business operations. In a normal operational context you would expect to restore a single, or limited number of backups. In a discovery project, you may need to restore hundreds or thousands of backups within a short span of time.
- defensibility issues that require a higher standard of integrity and auditability. In court only 100% counts. In addition, the courts and the other party are much more likely to scrutinize and challenge in-house execution vs. work performed by experienced outside experts specializing in this type of work
- additional technical challenges, typically associated with older backup media and formats. Since discovery related tape restoration tends to deal with historical data, one needs to be able to deal with the full range of issues that may arise as a consequence, from media problems to lack of antiquated software and hardware tools. In view of this, special resources are often required, including specialized tools to overcome software and hardware limitations such as are typically associated with this type of work.

As can be clearly seen, tape restoration is as much an opportunity as a challenge. The right strategy, tools and methodologies can make a world of difference. The good news is that these tools, and a substantial body of experience, already exist in the hands of vendors such as NDC.

Tape Processing Steps

- **Informed strategy**
- **Collection**
- **Media duplication**
- **Cataloging**
- **Culling**
- **De-duplication**
- **Normalization**

Tape processing can be broken down into a set of logically connected steps. The first and key element in successful tape processing is the development of the most effective processing strategy. This strategy must encompass the full cycle of processing phases, from identification and collection through all the subsequent processing steps.

Inexperienced litigants often have trouble formulating the right strategy to make their life easier and minimize the time, hassles, scope and cost of this type of work as well as to protect themselves from potential discovery disputes. The key element of a successful strategy is that it must be matter specific and reflective of the characteristics of the technology environment of the producing party. To achieve both goals, one needs to understand what evidence is considered responsive in the context of the particular litigation at hand and where to best find it within the technology and operating environment it comes from.

In line with this, a thorough understanding of the producing party's technology environment needs to be developed. This includes:

- hardware and software architecture employed for all relevant systems
- the key personnel, particularly key players responsible for system administration and backups
- types of data that are available and relevant in the litigation, such as emails, loose files, databases, voice traffic etc.
- a map or list of where this information may physically reside
- the procedures and policies employed in creating backups
- physical locations of the various key technology components such as email servers

Next, comes the collection of potentially responsive data, including taking possession of tape backups. A focused, well executed strategy would strive to limit the volume of backup tapes subject to discovery as much as feasible. There is simply no more effective place to limit time and cost in discovery than by intelligent selection of what needs to be produced.

Experience shows, on the other hand, that one of the biggest stumbling blocks, and risk factors, associated with successfully responding to a production request is the inability to gather all the relevant physical media, in a reliable manner, at the outset. Time and again, some of the most successful organizations get penalized for their inability to locate, for instance, all the relevant tape backups and for having to adjust their production certifications repeatedly as new batches of tapes appear from least suspected dusty closets. As understandable as this may be, given the traditional role and focus of IT departments, and how widespread and diverse technology may be within any larger organization, it is of little comfort in a courtroom setting.

Once the physical media has been identified and collected the actual work of processing the gathered tapes can begin.

One needs to identify and select the processing steps that will reflect the needs of the case. The typical processing steps associated with tapes may involve:

- duplication (optional but recommended, especially in high profile cases)
- cataloging (often a critical step to ensure effective processing)
- sampling (often a powerhouse way to test assumptions and limit scope)
- tape restoration
- culling of contents for relevant data sets
- de-duplication of content
- keyword searching to further cull relevant content
- normalization into a target format

A specific discovery project may involve one or more of the above steps. A more detailed discussion of each of these steps follows in the next chapter.

Smart Restoration

- **Strategy**
- **Discovery demand and response**
- **Sampling**
- **Media duplication**
- **Catalog**
- **Scope limitation**
- **Culling**

Tape restoration, part of the “first mile” of the discovery process, can be a surprisingly effective place to achieve major scope and cost savings for the overall discovery undertaking. However, to do so, one must plan ahead and make informed choices. Many parties wake up to the need at the last minute and then scramble to align the appropriate resources without being able to enjoy the benefits of planning and preparation. Not only does this endanger the whole process, but, typically, it increases the costs, in some cases astronomically.

The key components to a smart restoration strategy designed to achieve the greatest impact can be summarized as:

- plan ahead and develop vendor relationships for key services
- develop a production strategy matching case and party specifics
- sample, if appropriate and agreed to by the other party
- duplicate media to ensure integrity
- catalog, then restore only what is necessary
- cull as much as feasible by objective criteria that will not be challenged by the other side, see further discussion below
- use the most effective de-duplication strategy that will produce responsive material.

In all these steps, the expert assistance of an experienced vendor can make the difference between success and failure. Putting in place the right relationships ahead of time can make a world of difference when the time comes to take advantage of them.

The most obvious way of limiting the universe of data under consideration is to narrow down the scope of the initial discovery request by crafting an appropriate discovery motion or response. Once you have identified and collected the tapes of interest, work with a knowledgeable vendor to design the most effective strategy for processing the tapes. In fact, a vendor can contribute invaluable insight into the design of the initial request and response. Leveraging experience in this fashion can garner many benefits.

Furthermore, design the tape processing around an understanding of the IT architecture, the backup regimen and the operating dynamics of the party in litigation, such as the number and location of email servers, email server purging schedules etc. For instance, you may not need to process daily backups if you have confidence in the integrity and completeness of the data on weekly or even monthly backups.

Sample to confirm assumptions and eliminate variables. Sampling is often overlooked but can be a powerful weapon in reducing scope of work and is quickly winning favor from the judiciary to resolve discovery disputes. Given a sufficiently large opportunity your vendor should be happy to engage in this at minimal cost, based on setting the stage for a potentially larger project.

Media duplication, i.e. making a copy of the original media, is an often overlooked step in the rush to control costs, even though the costs of duplication are normally low in comparison with the other processing costs and duplication offers a simple and powerful safety valve in the processing mix. Although it is not required in most cases, like insurance, it can be invaluable in avoiding real disasters. It is a simple, low cost way to ensure evidence preservation and may be indispensable in high profile litigation.

Once you have employed the above steps and have collected the tapes, you are ready for the actual processing. Below is an outline of some of the various scope limitation techniques that are most effective. First, on the side of the culling techniques least likely to be questioned by the opposition:

- catalog tapes prior to any other processing. This may reveal important scope limiting opportunities and save substantial costs associated with tape restoration and further work.
- eliminate system and program files using commonly accepted file signatures developed by the NIST (National Institute of Standards and Technology), or similar techniques, or, on a grosser scale, by simply defining the source data types of interest. This way you can potentially eliminate huge swaths of irrelevant data quickly. For instance, if you are only interested in a particular type of content such as emails or MP3 audio files, make this an up front specification to allow you to limit the restoration scope
- de-duplication of exact copies. As long as you de-duplicate exact copies, no issue should arise with the other side (except to be able to document that those were exact copies, ie the methodology behind ascertaining "exact"). Further efficiencies can be accomplished down stream, in the review process, for instance, in utilizing near-duplicate identification technologies. It is not recommended that near de-duplication be utilized at the tape processing stage as the standards, best practices, general understanding and acceptance by the legal community of this are still evolving.

Here are some scope limiters more likely to require agreement from the other side:

- sample the backup sets. Choose representative samples to ensure full coverage of the data universe, for instance, if a pool of tapes represents a data range of backups make sure you choose a set from the beginning of the date range, the middle and the end. Sampling is a recognized technique for assessing whether a pool of data may contain relevant items. This may allow you to elicit the acceptance of the other side or the courts, to substantially narrow down the scope of discovery.
- limit by email server, or some other IT architecture component that may be identifiable on the backup tapes
- limit by division, geographic location or some other objective means that fits the matter specifics
- limit by date, or multiple date ranges, if appropriate
- limit by custodian if you can establish a mutually acceptable list of key and supporting players and have the other side agree to limit discovery to those, you can have tremendous impact on the scope of discovery work
- keyword searches (this whole area is evolving quickly from a technical perspective and requires its own discussion regarding the available search methodologies including concept searches etc.)
- limit by type of documents you are looking for i.e. loose documents, emails, databases or other types of electronic documents/data

A successful implementation of any combination of the above approaches can have a tremendous impact on the scope of work and costs of discovery.

To give an example, a client recently requested the processing of emails for a set of some 12 custodians from a set of 1,400 tapes containing GroupWise emails. After some initial consultations, we realized that, based on the email server architecture of the source environment and the associated backup regimen the client followed, only a small subset of the tapes could possibly contain the emails of interest.

We suggested that we first catalog the full pool of tapes to establish their exact contents, and on the basis of that, we would only process the tapes that actually contained the appropriate content. After cataloging, we were able to limit processing to less than a hundred of the tapes!

The associated cost savings were tremendous, on the order of several hundred thousand dollars, on the tape processing side alone. These types of cost savings are not unusual when approaching such work in an informed way. As always, all such strategies need to effectively reflect the matter specifics including issues in dispute, key players and such.

Why Its Not Easy

- **Outdated technologies**
- **Lack of information**
- **High volumes**
- **Many formats**
- **Quality of Process**
- **Documentation**
- **Old media**
- **Lack of tools**
- **Undefined best practices**
- **Time constraints**

The legal industry is littered with poorly executed tape restoration projects that needlessly escalated costs and exposed litigants to substantial risk. Those who have had any experience in this arena, are fully apprised of the incredibly varied gamut of issues and problems that can arise and need to be addressed in such an undertaking. Let's briefly review the various challenges encountered in tape processing.

Outdated Technologies

For starters, tapes often go back in time to technologies and skill sets that are no longer available. On top of this, given how dynamic and quickly changing technology is, the number of variables at play can be staggering.

Consider the variety of media types employed over the years, from 9-track tapes to the latest and greatest cartridge tapes, then factor in the variety of software elements from different backup programs to different operating systems and applications software such as email servers, databases, etc. Unless the universe of discoverable media is very limited, you could face an astounding variety of options on all these levels.

Lack of Information

To complicate things even more, most clients have no clue what is on their backup tapes. Might as well get used to it, clients typically have little information about the contents of their tape backups and information they do have may be inaccurate. This is understandable since these tapes may go back in time far enough so that organizational knowledge about them could be seriously impacted by staff changes, technology upgrades and misplaced records, particularly, given the lax attention paid to tape backups historically.

Although this seems like an insurmountable obstacle, there is a simple response available, such as performing, quick, low cost catalogs of tape contents. It is surprising how often this option is overlooked and yet what significant impact it can have on reducing overall project costs and timeliness. Basic cataloging can normally be performed pretty much at maximum raw tape speed. With some backup types it may not require scanning the whole tape and therefore require even less time.

A Huge Amount of Data

High volumes change the game. Tape restoration now often represents the highest volume of data component of discovery. This can represent huge challenges to be able to effectively scale to meet the requirements of such volumes, especially given the frustratingly tight deadlines typically associated with litigation.

The sheer volumes of physical media (tapes or disks) and data can be daunting. It is not uncommon for organizations to be looking at many years of backups, represented on tens of thousands, and, increasingly now, hundreds of thousands, of backup tapes or other media. Even with the smartest processing strategies these volumes represent many terabytes and even petabytes of data to be processed.

Given the various steps that are normally required: restoration, de-duplication, normalization, verification, that is a huge amount of processing. These volumes require substantial resources and represent unique challenges in processing.

Anyone who has been around the block knows that large amounts of data can have a magical propensity to make things not work. A database with a few hundred thousand records can break down when loaded with hundred of millions of records. If nothing else, it will exhibit very different operational characteristics. For instance, we have seen, with many database technologies, magical thresholds where, for instance, after certain number of records, the database slows down to an increasingly slow crawl, even when simply loading it up with a data set.

All of a sudden, in the middle of a high stakes project, you may discover that a key solution that worked wonderfully on a test bed of a few hundred thousand records bogs down when loaded with a few million and the project grinds to a halt until you resolve the issues. In this arena, experience counts.

Multiplicity of Physical Media and Logical Formats

When dealing with legacy backups you most often have to address issues of various physical media and logical formats. More often than not, many of the hardware and software components utilized to create the backups are no longer available within the organization. Even if they are still available in some limited fashion, they are typically not available on the scale required to meet the processing requirements of the contemplated project. For instance, a single 8MM tape drive is simply not going to process hundreds, or thousands, of 8MM tapes in a timely fashion.

In fact, many of the necessary elements, particularly if discontinued by the manufacturers, may be hard to reach in the general marketplace and of dubious quality. Maintenance and reliability issues can often plague such a project.

Quality is King

The integrity of the restoration and ingestion process is, or should be, of paramount importance. Issues of accuracy, completeness and reliability of results need to be addressed authoritatively. In this business, nothing less than 100% accuracy, is legally defensible. Methodologies utilized have to be comprehensively tested, fully verifiable and a complete audit trail must be maintained at all times.

In the legal context, chain of custody documentation is de-rigueur. Few organizations fully understand, much less have time tested solutions or experience, to address such critical requirements. The industry abounds in, and the legal press is filled with, stories of undertakings that have not met this level of integrity.

We have seen an incredible recklessness in some of the in-house undertakings along these lines. Details such as not properly accommodating BCC'd emails or inaccurate de-duplication methodologies etc. are common.

In the end, all such undertakings need to be able to stand up to strict legal scrutiny.

Documentation and Audit Trail

No matter how good you think you are at it, for these undertakings, being able to prove it counts. In addition to a comprehensive, and legally defensible process, you should be able to document every step and account for every item of data.

In the legal context this is covered under the chain of custody and evidence handling protocols. You simply never know if and when this may come into play. Again, the press is full of stories where this played a critical role in a legal or regulatory proceeding.

Source Media Issues

Within any universe of physical media, damaged, deteriorating and poorly documented source media always plays a role. The larger the pool of media involved, and the older it is, the more of an issue this tends to be.

Tapes are not perfect. In fact, all magnetic and optical media, tapes, disk drives and optical platters, have manufacturer specified useful life spans. Normally this is expressed in terms of Meant Time Between Failures (MTBF) or the average shelf life under near ideal/reasonable storage environmental conditions.

Helpful as these generally optimistic figures may be in a generalized context of choosing forward looking technologies, the fact is that any specific piece of media can vary widely from the manufacturer's specifications. Not only that, in practice, for instance, we find that with a large enough sample of tapes it is not uncommon to get a 1-2% media failure rate even under the best circumstances. Higher error rates raise red flags and require more detailed examination to establish causal factors.

Being able to address these issues, and having the tools and skills to do so effectively in the course of a project, becomes a critical differentiator in successful execution. For instance, even considerations of tape drive maintenance and detailed tape characteristics can be indispensable in navigating the different problem areas associated with processing large volumes of tapes.

Specialized Tools

In general there is a lack of commonly available and effective tool sets to perform the various tasks associated with legacy data restoration projects. Relying on the original software tools, if even available, poses too much of a risk and, typically, simply cannot accommodate the variety of issues that arise with legacy backup sets.

In fact, even when available, such an approach may not scale to meet the time requirements. Often, only specialized, proprietary tool sets can effectively accommodate the issues and scale of processing that is necessary.

Therefore, a comprehensive repertoire of time tested tool sets, such as an experienced vendor can bring to bear, can be invaluable in snatching success out of the jaws of defeat, particularly, in those all too common situations where everything else fails.

Where are the Best Practices?

The legal industry would be relieved if simple, clearly defined, best practices were available to be followed. Although industry organizations such as the Sedona Conference offer a variety of generalized guidelines, these are far from specific action plans one can simply employ on the fly.

Given the complexity of the undertaking it is unlikely these will arrive on the scene, in any practical form, any time soon. In the meantime, lessons are learned the hard way, by trial and error, with all the arrows in the backs of the pioneers.

In Sum

What does all this mean in the context of a particular project? Be prepared for surprises. No two tape restoration and processing projects are ever exactly the same. Flexibility and expertise are essential to overcoming any obstacles uncovered in the course of a project.

In-house or Outsource?

- **What it Takes**
- **Stress Points**
- **Penny Wise & Pound Foolish**
- **Will it Play in Court?**
- **In Sum**

One of the very fundamental decision litigants, or their advisors, face is whether electronic discovery efforts should be undertaken in-house or outsourced. In-house versus outsource issues tend to spark passions and be debated rather fiercely. It is hard to avoid partisanship and it is important to lay out clear and cogent rationales for either approach and then let logic guide the decision making. Having said that, I must be just as clear that this paper lays out the underlying rationale for outsourcing, simply, because in this case the author cannot find a powerful enough argument for the alternative.

Many litigants, unfamiliar with the challenges of backup tape restoration assume that they would be better off doing this in-house. After all, the logic goes, it is only a tape backup, if we created it what could possibly be so difficult about restoring content from it.

As we have seen, tape restoration in the legal electronic discovery context is not an easy proposition. In fact, it is far different from any typical internal data restoration. As understandable as it may be do attempt to lower costs by doing this in-house, this approach is often full of little understood peril. The larger the collection of potential evidence the greater the risks and the greater the need for professional help.

Even the best run organizations often stumble with this issue. Whether this is because of a good faith, but, from a business and legal perspective, misguided efforts to cut perceived costs, or, a more general organizational reluctance to outsource anything, companies have a very mixed track record in this arena.

However, very quickly, anyone tasked with legacy data restoration, whether from tapes or optical disks, discovers just how challenging this can be. There are many reasons for this. For one thing, few organizations have the experience or resources to undertake this type of work successfully.

What it Takes

It is no secret that so many cases have involved spoliation issues associated with in-house attempts to process discovery requests that have backfired. The consequences have often been catastrophic, ranging from heavy fines to the most severe sanctions.

Most often, in-house resources are simply not up to the task to assure timely, legally defensible production. The risks become too great as the courts become increasingly impatient with any delays and errors in discovery. Any mistakes become open fodder for the opposing party and find increasingly receptive audience in the judiciary.

It is imperative, therefore, to assure integrity, defensibility and timeliness. In practice, the typical obstacles to achieving this take many forms:

- technical hurdles - it is far more difficult than first appears
- resource availability - it requires far more resources and effort (read cost) than can be anticipated if you haven't done it already
- confidence - low reliability and integrity of any in-house process
- time - it takes far longer if you are not prepared and have the appropriate resources tested and available

- mistakes are costly - you don't want to learn from your mistakes
- hassles - it can be overly disruptive of your normal operations
- can you prove it - in-house efforts tend to lack the legal credibility of outsourced work performed by recognized experts in the field
- experience - in-house staff are at a disadvantage to apply the lessons that an experienced vendor brings to bear on such projects

Stress Points

Because of the above challenges, we have seen many in-house efforts encounter the following common disappointments:

- dramatically extended time frames
- unexpected cost overruns
- suspect results
- inefficient and duplicative efforts
- multiple reversals and re-dos
- risks increased rather than lessened
- inability to respond effectively to the original goal of the effort ie litigation support and compliance
- impact on other, mission critical, organizational priorities

Penny Wise and Pound Foolish

In most cases, the IT department is first tasked with the responsibility and costs. Many IT departments feel challenged by the deceptively simple, on the surface of it, proposition represented by tape restoration. After all, they created the backup media (tapes or disks) in the first place and are the likely custodians. How difficult, the argument, goes can it be to just restore the old backups and hand off the data to the attorneys.

There is often the budget dilemma where management, sometimes unappreciative of the level of effort and cost, allocates, minimal, if any, additional funds for this undertaking, and, therefore, it may have to come out, at least partially, out of the overall IT budget. Given these pressures, the hapless IT folks undertake to do the organization another big favor and try to meet the challenge themselves.

Aside from everything else there is the traditional IT reluctance to outsourcing in general. Sometimes, this may be driven by a good faith effort to save cost. Unfortunately, often, this may reflect poor business judgment such as is associated with trying to save perceived obvious costs without a larger view. Surprisingly, from a business perspective, many technology decisions are still driven by the "must not outsource anything, if I can help it" view.

Or, the in-house staff feels challenged by what, at first glance, seems like an deceptively simple proposition. This, "if they (an outside vendor) can do it, surely we can do it too", mentality has been a traditional bane of effective decision making in technical environments.

But Will it Play in Court?

The legal credibility of having hired an outside expert is often itself well worth the price of outsourcing. The simple fact is that in-house efforts can raise legal issues that may be hard to overcome and can undermine the whole value proposition of the solution being implemented. Once attacked in court, a poorly documented process can be a red flag for further litigation.

We have seen more than one organization outsource the process only after having already executed some part of it in-house, due to a lack of confidence in the original outcome. If nothing else, you may find your in-house IT staff needing to testify regarding the processes utilized.

By the way, as most legal professionals recognize, in-house IT folks are not necessarily your favorite witnesses.

Is There Really a Choice?

The fact is that tape restoration for discovery purposes is one of the more easily justifiable activities to outsource that any organization can encounter. The business logic behind this is straightforward when laid out clearly.

Given the increased risk profile associated with not executing such work reliably and in a timely manner, few organizations can afford to play with fire.

How to Select a Vendor Partner

- **plan and prepare**
- **choose vendors wisely**
- **avoid last minute fire drills**
- **evaluate options ahead of time**
- **sign an MSA**
- **work with the vendor**

The right vendor can make a world of difference in assuring success of the tape restoration process. Experience, reliability and integrity are key elements to look for.

Typical selection criteria:

- experience and track record
- focus
- technical capabilities
- scalability
- customer service orientation
- financial stability

Check references carefully, visit the vendor site(s), get sample pricing, all in the luxury of unlimited time unlikely to be available in the midst of a litigation.

A surprisingly simple first step is to prepare for the future. The key element in this preparation is to identify appropriate vendors, verify their credentials and formalize a relationship ahead of time. After developing a short list based on an evaluation process such as issuing and evaluating responses to an RFI (Request for Information) you can be comfortable formalizing a relationship. A simple instrument of this is to sign an MSA (Master Services Agreement) with selected provider(s) ahead of need, while you have the luxury to negotiate the best deal.

It is imperative to create a cooperative environment of mutual trust that is the basis of success. Open and frank discussions are an integral part of this. A vendor must be willing and able to discuss promptly any concerns and issues that may arise.

In few industries are details of such importance as in electronic discovery. They drive scope of work and all the associated elements such as price, turnaround and quality. Not all vendors are equal in their capabilities and price. In fact, tape processing is such a dynamic field both capabilities and pricing can vary widely from vendor to vendor and change on nearly daily basis. It pays to shop and check credentials.

Given all that, there may only be a handful of vendors that really specialize in tapes and are proficient at handling them. In brief:

- don't underestimate the complexity of the undertaking
- rest assured that vendor capabilities exist to deal with just about any challenges tapes represent
- the cost and timeliness may be surprisingly affordable given state of the art vendor capabilities

At the same time, the business case for utilizing specialists to process tapes has never been stronger. You simply cannot muster the resources and expertise necessary to do tapes quickly and reliably that people who do this for a living have available. It's smart to piggyback off the prior efforts and lessons learned that a specialist in the field brings to bear on your behalf. A learning curve in this industry can be very expensive, even perilous. Not to mention the various proprietary tools a viable vendor has behind its belt, to be able to overcome the common limitations of more traditional approaches.

What NDC Brings to the Table

- **20 years of experience**
- **40,000 projects**
- **5,000 clients**
- **clear focus**
- **track record**
- **unique tools**

For nearly 20 years NDC has specialized in a very narrow but critical aspect of the litigation support services spectrum, tape restoration and processing or the "first mile" of the discovery process. NDC has experience with the largest tape restoration projects ever undertaken in the history of electronic discovery. We know how to scale and meet the tightest deadlines. We also bring to the table a refreshing level of expertise, professionalism and dedication.

As pioneers in the industry, we have developed the many innovations that are indispensable to success, such as non-native file restoration. We offer:

- largest staff dedicated to data conversion
- unique, proprietary technologies and methodologies
- unparalleled track record spanning 20 years, 40,000 projects delivered to over 5,000 customers
- hundreds of thousands of tapes processed
- largest email restoration project ever undertaken
- specialized and focused on core competencies

The special value proposition that NDC brings to the table is our clear focus and unparalleled track record with this type of work. An effective strategy and execution at this initial stage of discovery can leverage multiple benefits for downstream processing, including substantially reducing the volume, time frames and costs of such processing.

We don't do end-to-end. NDC specializes in the "first mile" of the electronic discovery process for both compliance and litigation. We restore electronic content from source media such as backup tapes and optical disks. We then cull it for content of interest, de-duplicate it and normalize it into customer selected target formats. This can cover both emails and other ESI (Electronically Stored Information) types such as loose documents, databases and so on, including some very esoteric, leading edge formats such as voice logging tapes.

Our services encompass:

- state of the art tape and optical disk restoration
- email and other content processing (culling, de-duplication and normalization)
- voice logging/mail processing
- advanced legacy data conversions
- media duplication (tapes and disks)
- highly scalable, large volume processing capacity

We have worked, typically behind the scenes, on many of the most prominent cases in the country, supporting the various stakeholders. Our services have been utilized by the top tier firms in the nation, including the largest law firms, full service consultancies and most Fortune 100 corporations

We are one of the select few vendors who have remained loyal to their core competencies over the years and have excelled as a result. NDC has followed this very different tack from most other vendors since we believe that this "first mile" is critical to setting a sound foundation for success in all subsequent phases.

NDC offers the experience, track record and time-tested methodologies, combined with a huge pool of dedicated resources to assure peace of mind.

About the Author

- Founder & President

Michael Daniec is the President and CEO of National Data Conversion (NDC). Michael has over 30 years of dedicated experience in both technology consulting and management of computer-related business enterprises, culminating in the founding of NDC in 1987. Under his leadership, NDC has played an instrumental and pioneering role in the evolution of the tape restoration and data conversion industry, and he has grown the company to its current position as a nationally recognized leader of these services.

NDC has completed more than 40,000 successful conversions over the life of the company. As a testament to its success, NDC now represents many of the world's largest and most prominent businesses, financial institutions, law firms, branches of government, most prominent cultural and educational institutions.

Michael's earlier experience and thorough apprenticeship in the industry laid the foundation for NDC's success and has provided him with a comprehensive and intimate understanding of both the technical issues and business challenges involved with NDC's services. Prior to establishing NDC, Michael spent five years managing other computer technology-related companies. He started his first company in 1982, selling custom programming for business applications, including various business process automation applications. Michael's dedication to the industry resulted in his progressive mastery of the most advanced technical issues associated with the development and delivery of high tech professional services and the development of his credo "a proud dedication to service and excellence".

Under Michael's leadership, NDC became an early leader in the tape restoration and conversion industry and pioneered many of the methodologies currently in use in the industry, including non-native tape restoration. NDC currently offers the greatest range and depth of such services, with the most technically advanced methodologies.