ADR Technology Survey Indicates Case Management Issues and Arbitration E-Discovery Problems Are Spreading, Growing More Expensive

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Discovery disputes relating to electronically-stored information, referred to in this article as ESI, continue to bedevil the courts. The disputes increasingly are arising in domestic commercial and some international arbitrations. This article discusses specific types of E-discovery disputes practitioners encounter or can expect to encounter.

In preparation for an October 2008, presentation, at the College of Commercial Arbitrators' Annual Meeting in San Francisco, the authors conducted an informal survey of some of the College's Fellows. The College is an eight-year-old international commercial arbitrators' professional organization that promotes ethical best practices. (See www.thecca.net.) The goal of the survey was to identify the types of ESI discovery disputes that the Fellows see in cases where they have served as an arbitrator.

A number of the CCA Fellows responded that they have been blissfully free of such disputes in their cases to date, and hope to remain so for the foreseeable future.

But others have been seeing E-discovery issues, and they are saying that these issues have presented a variety of types of disputes for resolution by the arbitrator. Overall, the survey indicates that College Fellows have encountered six main types of E-discovery disputes in their arbitrations,

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1. How extensive and expensive a search must be done in order to respond to a document request seeking ESI?

The survey indicates that this is the type of ESI discovery dispute that Fellows have encountered most often. Almost all predicted increasingly frequent disputes of this sort.

In the courts, search alternatives have ranged from relatively straightforward and limited searches of particular witnesses' computers or servers, for relevant documents and E-mails, to wide-ranging and expensive searches covering terabytes of data. (A terabyte is a measurement term for data storage capacity. It denotes one trillion bytes, or 1,000 gigabytes. A gigabyte is the equivalent of about 500,000 typewritten pages.)

Particular search issues considered by the courts, among many, have included whether the search must seek out "deleted" files; whether the search should encompass multiple and possibly redundant storage locations, such as laptops; whether the search should go beyond active data to also include backup tapes and other ESI sources, such as fragmented, shadowed, or other residual ESI; whether search terms must be employed disjunctively or conjunctively; and whether forensic images of a hard drive can be created to preserve the data for later searching and analysis.

The arbitrators who responded to the survey made the following comments on the issue of searches' extent and expense in response to ESI discovery requests:

- "Depends. Balance the potential importance of the information sought and the stakes in

the arbitration against the cost and intrusiveness (and bear in mind that arbitration is meant to be quick and cost-effective)."

- "I believe the extent of the search must be such that the attorney for the producing party can state with 'reasonable certainty' that it would fully respond to the document request. . . . There is now a premium on attorneys cooperating with one another in determining the universe of electronic information, the differing methods of storage, how to best and most efficiently retrieve it, and the most appropriate form of production. Thus far, I have been pretty successful in convincing them that their IT people and their clients' IT people know a heck of a lot more about this than do I, so they are far better served in figuring out what works for them."

"With the key documents likely to be increasingly E-documents, and these not necessarily on hard drives or in straightforwardly searchable locations, I don't think arbitrators and judges will be able to stay aloof from issues related, e.g., to whether a party has made reasonable efforts to search for and produce highly relevant documents."

- "The request should be narrowed to only those documents that either support or undercut a claim or defense, PERIOD. I am not a believer in permitting requests for all documents relating to subject 'X.'"

SECONDARY DATA?

The survey identified a number of sub-issues. For example: When may the requester require the responder to access backup or secondary databases, rather than just easily accessible databases? What sort of factual basis or showing should be required before ordering back-up searching? When may non-primary storage devices be required to be searched (e.g., home computers, personal laptops, PDAs, flash drives, etc.)? When may a party discover the other side's document retention policies and practices--they are rarely the same--for ESI and litigation hold procedures?

Another sub-issue was identified in the survey comments: "I have seen a fairly steep increase in the number of privileged documents inadvertently produced electronically. The attorneys receiving the production have been quite good about ferreting them out before reading them and before any damage was done, but it is an increasingly problematic issue."

(One author reports "an exponential increase of problems of inadvertent production of privileged material caused by E-discovery." See Irene C. Warshauer, "Electronic Discovery in Arbitration: Privilege Issues and Spoliation of Evidence," 61:4 *Dispute Resolution Journal*, vol. (November 2006-Jan. 2007).)

Also: "The extent of the required search for electronically stored information depends on the usual parameters for discovery (e.g., a date range deemed relevant, and some showing that the information is reasonably calculated to lead to relevant and admissible evidence), and the cost and time that would be necessarily expended by the responding party. Generally, it is not burdensome to search for E-mail messages maintained on a computer system and subject to active retrieval by system users in the ordinary course of business."

The Advisory Committee notes to the 2006 Federal Rules of Civil Procedure amendments suggest a number of factors that may be relevant to requests for extensive and invasive searches. These include:

- Whether the responding party can make a persuasive showing of undue burden and cost.
- Whether such a showing of undue burden can be overcome by a showing of good cause

consistent with FRCP 26(b)(2)(C). See below.

- The specificity of the discovery request--the general idea being that the requesting party should be required to narrow and tailor a specific set of discovery requests.
- The amount of information available from more easily accessed sources: The parties should examine readily available information first.
- Whether the responding party has failed to produce relevant information that is likely to have existed but is no longer available on more easily accessed sources, or at all.
- The likelihood of finding relevant, responsive information that cannot be obtained from more easily accessed sources: The parties can conduct sampling to determine the costs and burdens of production, and the likelihood of finding responsive, highly-useful information.
- Predictions as to the importance and usefulness of the further information, considered in light of the amount in controversy.
- Importance to the issues at stake in the litigation.
- Whether the court should consider appointing a neutral forensic expert.

As these factors illustrate, the federal judiciary's general response to this issue in theory has been the rule of proportionality. This general principle--that courts may limit discovery where its costs do not justify its benefits--was made explicit in Fed.R.Civ.P. 26(b)(2)(C), adopted in 1980. The principle also is reflected in the more recent amendments to Rules 16, 26, 33, 34, 37, and 45 dealing with E-discovery, which were adopted in late 2006.

In practice, however, the utility of this important principle "has been limited in view of the broad standard for discovery in federal litigation. . . . [B]road discovery is the cornerstone of the U.S. litigation process, despite efforts of courts to balance the competing need for broad discovery and manageable costs." Jonathan L. Frank and Julie Bedard, "Electronic Discovery in International Arbitration: Where Neither the IBA Rules Nor U.S. Litigation Principles Are Enough," 62:4 *Dispute Resolution J*. 65-66 (November 2007–January 2008). The principle of proportionality "could have taken center stage with the advent of E-discovery and its capacity to inflict enormous costs on litigants, but it did not. In fact, the debate about E-discovery in U.S. litigation has focused more on the allocation of its costs than on its scope." Id.

With this history in mind, one fundamental policy issue facing arbitrators is whether they should or will choose to follow the courts' lead by generally permitting extensive, expensive, and intrusive ESI searches, and focusing decision making mainly on who should bear the cost of such searches, or whether arbitrators will rigorously apply the rule of proportionality to fashion more restrictive limits on access to such searches than the courts to date have done.

HELP ON PROPORTIONALITY

The Sedona Principles comprise one source that may be helpful to arbitrators approaching such issues in future cases. These principles articulate a set of best practices recommended by an independent think tank to help guide resolution of E-discovery disputes. "The Sedona Principles Addressing Electronic Document Production, Second Edition" (June, 2007)(available at www.thesedonaconference.org).

In general, these principles counsel firm application of the rule of proportionality to require "consideration of the technological feasibility and realistic costs of preserving, retrieving, reviewing, and producing electronically stored information, as well as the nature of the litigation and the amount in controversy." See Principle 2.

The Sedona Principles also specifically recommend the following on several of the specific issues identified above by Fellows of the College of Commercial Arbitrators:

> The primary source of electronically stored information for production should be active data and information. Resort to disaster recovery backup tapes and other sources of electronically stored information that are not reasonably accessible requires the requesting party to demonstrate need and relevance that outweigh the costs and burdens of retrieving and processing the electronically stored information from such sources, including the disruption of business and information management activities. . . . Absent a showing of special need and relevance, a responding party should not be required to preserve, review, or produce deleted, shadowed, fragmented or residual electronically stored information." See Principles 8 and 9.

One management tool that has particular merit in such disputes is sampling. Before parties are exposed to wide-ranging ESI searches, it often is possible to fashion searches that are more limited, and less intrusive and expensive. These searches may test the utility of replicating the limited sample searches more broadly.

This approach may not always be useful or possible, but it often is a constructive alternative to consider before authorizing a wholesale search, or in resolving particular motion-to-compel issues. See the Sedona Principles, No. 11: "A responding party may satisfy its good faith obligation to preserve and produce relevant electronically stored information by using electronic tools and processes, such as data sampling, searching, or the use of selection criteria, to identify data reasonably likely to contain relevant information."

In the same vein, in May 2008, the International Centre for Dispute Resolution, the international division of New York-based American Arbitration Association, announced the release of a new set of guidelines for the document disclosure process in international commercial arbitrations.

Guidelines Nos. 4 and 6(a) provide that arbitrators "may direct testing or other means of focusing and limiting any search" for ESI and also encourage arbitrators to be "receptive to creative solutions for achieving exchanges of information in ways that avoid costs and delay, consistent with the principles of due process. . . ."

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2. Must/may ESI responsive to a document request be produced in electronic format instead of in hard copy?

Several Fellows responding to the survey stated that they have been presented with this type of dispute in their arbitrations. The respondents had the following comments about how they have approached this issue:

- "Absent party agreement (which, surprisingly perhaps, is often achieved without arbitrator intervention), I follow the Sedona Principles, and in particular the principle numbered 12, and order relevant information ordinarily maintained in electronic form to be produced in that form absent some countervailing issue such as high costs to the responding party or confidentiality concerns (often addressed through an agreed protective order)."
- "Yes. Seems to me this will generally be less burdensome for the producing party and more useful for the requesting party."
- "I have found the recipient usually prefers that method, and I see no benefit from incurring the increased cost of producing it in hard copy."

- "It is quite customary now for documents to be produced in [electronic] form, rather than hard copy. However, an important question arises as to whether or not hard copy documents should be scanned into [electronic] form before production by the producing party. It is all a matter of specific circumstances. As an arbitrator, I prefer hard copies of important documents arranged in chronological order, as well as the [electronic] form. Searching the [electronic] form for minutiae may be useful, but more useful for me is the ability to turn pages and get the story as it unfolded chronologically. . . . Of course, a fundamental issue, especially in international arbitrations, is whether anything more than very limited document production ([electronic] or otherwise) ought to be permitted. Over and over again, U.S. litigators move forward as though they were in federal litigation. I believe we ought to work hard at training U.S. litigators to learn to try arbitrations on the merits without full discovery. In situations where the opposition is the only repository of genuinely important documents, 'discovery' is warranted. In many other situations only very limited discovery is, in my view, warranted."

Another Fellow recalled the one time he confronted this issue: "I actively discouraged the parties from pursuing E-discovery as being incompatible with arbitration. They both acquiesced."

Another rightly observed that the issue as posed above can lead to more nuanced disputes: "What form may the production of ESI take [native format versus a .TIFF image])? This also involves redacting and Bates-numbering issues." (A tagged image file format, or TIFF, is a file format for storing images, including documents and photographs, and is widely used in document imaging and management, and high-volume storage scanning. Producing ESI in native format can fail to protect a document's future integrity if it was created in a modifiable software application, such as MS Word, WordPerfect or Excel, and also raises issues as to whether the ESI can be redacted or Bates-numbered effectively.)

Sedona Principle No. 12 provides: "Absent party agreement or court order specifying the form or forms of production, production should be made in the form or forms in which the information is ordinarily maintained or in a reasonably usable form, taking into account the need to produce reasonably accessible metadata that will enable the receiving party to have the same ability to access, search and display the information as the producing party where appropriate or necessary in light of the nature of the information and the needs of the case." (Metadata is hidden data not visible when the document is printed that contains information about the document's provenance, such as when it was created, when it was last modified or accessed, and who created it. See Frank and Bedard, supra, at 64.

ICDR Guideline 4 provides, "When documents to be exchanged are maintained in electronic form, the party in possession of such documents may make them available in the form (which may be paper copies) most convenient and economical for it, unless the Tribunal determines, on application and for good cause, that there is a compelling need for access to the documents in a different form. Requests for documents in electronic form should be narrowly focused and structured to make searching for them as economical as possible. . . ."

The Advisory Committee notes to the 2006 amendments to Rule 34 also contain some interesting discussion of these issues. These include:

1) The producing party's "option to produce in a reasonably usable form does not mean that a responding party is free to convert [ESI] from the form in which it is

ordinarily maintained to a different form that makes it more difficult or burdensome for the requesting party to use the information efficiently in the litigation," and

2) "If the responding party ordinarily maintains the information it is producing in a way that makes it searchable by electronic means, the information should not be produced in a form that removes or significantly degrades this feature."

The courts also have considered the general problem of sanctions for failure to make the production in an appropriate manner. In *In re Seroquel Prod. Liab. Litig.*, 2007 WL 2412946 (M.D. Fla. Aug. 21, 2007), for example, the plaintiffs in a multidistrict product liability litigation sought sanctions for failure to produce documents in an accessible or useable format, in addition to missing numerous deadlines. In awarding sanctions, the court cited the defendant's failure to discuss keyword search terms with plaintiffs, failure to include page breaks between documents it did produce, failure to produce usable single-page TIFF documents, omission of attachments and relevant emails, and purposeful sluggishness in making an effective production.

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3. Who should bear the cost of searches for ESI?

Several survey respondents have had this issue, and almost all of them see this as an issue that practitioners are likely to see again and again. Comments included:

- "Cost is always an issue. I generally start from the premise that whoever wants it pays for it, though I sometimes have to modify that thought. That does, however, tend to make people a bit more realistic in their demands."
- "Arbitrators will be dealing with issues of spoliation of ESI and non-compliance with arbitrators' orders to produce ESI or pay the costs of production. Since the arbitrators' authority to impose monetary sanctions in these situations may be limited, in big cases where ESI issues are expected to arise and be hard fought, parties may elect to go to court rather than arbitrate in order to obtain the benefit of stronger and enforceable penalties for non-cooperation in E-discovery."

Another Fellow predicts increasing "motions for sanctions for failure to preserve ESI and for alleged spoliation, and also motions to shift costs (expense of searching and producing) or for excessive demands."

The general guideline suggested by the Sedona Principles is as follows: "Absent a specific objection, party agreement or court order, the reasonable costs of retrieving and reviewing electronically stored information should be borne by the responding party, unless the information sought is not reasonably available to the responding party in the ordinary course of business. If the information sought is not reasonably available to the responding party in the ordinary course of business, then, absent special circumstances, the costs of retrieving and reviewing such electronic information may be shared or shifted to the requesting party." See Principle No. 13.

It should be noted, however, that this general guideline in favor of having the responder pay is made in the context of other recommendations that would give substantial deference to the responding party's choices as to the best procedures, methodologies and technologies to use in searching for and producing their own ESI. See, e.g., Principle No. 6.

The ICDR guidelines seem to strike a different balance. They state: "In resolving any

dispute about pre-hearing exchanges of information, the tribunal shall require a requesting party to justify the time and expense that its request may involve, and may condition granting such a request on the payment of part or all of the cost by the party seeking the information. The tribunal may also allocate the costs of providing information among the parties, either in an interim order or in an award."

As several Fellows' comments noted, a potentially major follow-up issue is possible cost-shifting, and perhaps other sanctions, for spoliation of ESI. Alleged spoliation, for example can occur "through routine recycling of backup tapes, deletion of E-mails, and changes in documents caused by automatic computer operations. . .." Warshauer, supra, at n. 3.

Courts have wrestled with an E-discovery definition of spoliation, and also with the appropriate sanctions to deter it. Id. The Sedona Principles counsel a pragmatic and somewhat forgiving approach to these issues: "The obligation to preserve electronically stored information requires reasonable and good faith efforts to retain information that may be relevant to pending or threatened litigation. However, it is unreasonable to expect parties to take every conceivable step to preserve all potentially relevant electronically stored information. . . . Sanctions, including spoliation findings, should be considered by the court only if it finds that there was a clear duty to preserve, a culpable failure to preserve and produce relevant electronically stored information, and a reasonable probability that the loss of the evidence has materially prejudiced the adverse party." See Principles Nos. 5 and 14.

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4. Can the requesting party compel the responding party to allow it to conduct searches on the responding party's proprietary computer/software system?

Several survey respondents have encountered this issue, although less often than the others discussed above. Comments included:

- "On a showing of good cause for an audit of the responding party's records, including information stored or available only in electronic form, I have entered a detailed order providing for the requesting party's computer auditing expert and attorneys to go to responding party's business premises and be assisted by a qualified and cooperative employee of the responding party (and the attorneys for the responding party) in conducting computer searches of data in response to inquiries within the scope of discovery as set forth in my order. During the audit, I received a telephone call from the attorneys and was requested to rule on whether a requested search was within the scope of my discovery order. I did so and the audit was completed without further problems."
- "No. Except that, with a tailored protective order in place, an outside expert might be permitted to conduct a targeted review of the producing party's system, or software might be made available."
- "Where credibility is a core issue, there may well be reason to permit an opponent to examine a party's computer/software system."
- "I am loathe to allow opposing parties to get into each other's proprietary systems. The opportunity for mischief, inadvertent or otherwise, is just too great and, frankly, I do not have the skills to monitor it. I think the attorneys (who have IT people in their law firms) must be relied on to monitor it."

Courts generally have been cautious about allowing such searches, mainly for fear that the search might inadvertently result in alteration of the data. For example, the courts may order

production of software necessary to read and manipulate, but not change, the ESI.

Particular cases, however, have held that both Rule 34, as to parties, and Rule 45, on third parties, may in appropriate cases allow testing, sampling and entry onto the producing party's property to permit an inspection of a computer system by performing searches on its data, creating a forensic image of the data, or even seizing a particular computer for analysis.

The Sedona Principles suggest that "[w]hen balancing the cost, burden, and need for electronically stored information, courts and parties should apply the proportionality standard embodied in Fed.R.Civ.P. 26(b)(2)(C) and its state equivalents, which require consideration of the technological feasibility and realistic costs of preserving, retrieving, reviewing, and producing electronically stored information, as well as the nature of the litigation and the amount in controversy." See Principle No. 2.

ICDR Guideline 5, provides that "[t]he Tribunal may, on application and for good cause, require a party to permit inspection on reasonable notice of relevant premises or objects."

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5. Can the requesting party depose an employee of the responding party to assess the quality of the producing party's search for responsive ESI?

The survey respondents encountered this issue less frequently than the others discussed above, but they again predicted that practitioners will see more of this type of dispute. This topic encompasses questions such as whether the requesting party can conduct written discovery or depose an appropriate official of the producing party concerning its universe of computers and other electronic devices, document retention policy and compliance, the form in which ESI is created and retained, data backup and storage locations, network configuration, proprietary software in use during the relevant time period, and other sources of ESI.

Comments included:

- "Yes, subject to balancing [the importance of the information sought, the stakes in controversy in the arbitration and the cost and intrusiveness] (perhaps with deposition time limits). The adequacy of a search may be a huge issue where documents relevant to the dispute were generated by many people in many locations. In one case[,] I permitted a brief deposition of the producing party's IT guy who had coordinated the search for responsive emails and other documents."
- "If there is any question regarding the quality of the responding party's search for ESI, by all means it is appropriate for a party to inquire regarding the scope of the search, subject to normal principles of attorney-client privilege and work product."
- "If credibility is in issue or it is imperative that the tribunal know the extent of a search (e.g., where it appears that important documents should exist but have not been produced), oral examination before the tribunal of the person who conducted or supervised the search may be appropriate. Otherwise, not. Also, oral examination before the tribunal of key players may be appropriate."

MIXED GUIDANCE

The guidance available on this issue is mixed. The Sedona Principles don't offer guidance on it. The ICDR guidelines provide that "[d]epositions, . . . as developed in American court procedures, are generally not appropriate procedures for obtaining information in international arbitration." Guideline 6(b).

The American Arbitration Association's Procedures for Large Complex Commercial

Disputes, Rule L-4(d), provides that "[a]t the discretion of the arbitrator(s), upon good cause shown and consistent with the expedited nature of arbitration, the arbitrator(s) may order depositions of . . . such persons who may possess information determined by the arbitrator(s) to be necessary to determination of the matter."

The Federal Arbitration Act and various state arbitration acts take differing approaches to the use of depositions generally.

But none of these sources offer much guidance on the specific E-discovery issue posed to Fellows in Question 5 above.

One practical management tool that can be useful in some cases might be to explore whether the requesting party would be satisfied with a declaration by an information services manager, or a similar official, concerning the nature and scope of the producing party's search and production.

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6. Who may have access to the produced ESI?

One Fellow reported that he has had this issue: "Where electronic data files contain proprietary information and are produced subject to a protective order, there may be an issue regarding who may have access to the ESI. I have ordered copies of electronic data files to be kept secure and under the control of the requesting party's auditing expert, with access restricted to certain specified individuals (for example, only the control group of the requesting party) at a particular secure location (the expert's office)."

A FEW PREDICTIONS

To supplement the reporting and comments on the responses of the Fellows of the College of Commercial Arbitrators, we conclude with a few predictions:

Discovery disputes over ESI aren't going away. Although several of our survey respondents seemed to regard E-Discovery as a road they would rather not travel, we doubt that the future will give arbitrators this luxury. "The transformation in the means of information storage is galvanized by the ever-increasing speed and storage capacity of computers, which are roughly 10,000 times faster than 20 years ago and in the last decade have enjoyed approximately a 100-fold increase in storage capacity. This trend is not likely to stop in the foreseeable future." Frank and Bedard, supra, at n. 4. "It is estimated that 92% of all 'new data' are created in electronic format. At least 70% of all electronic files are never committed to hard copy. . . ." John C. McMeekin II and Thao T. Pham, "The Age of EDiscovery," *The Brief* 55 (Summer 2008).

People say the most amazing and ill-considered things in E-mails making them important discovery targets for lawyers seeking to prove up a claim or defense. U.S. litigators who usually practice in the courts increasingly are coming to expect discovery of ESI. Discovery in high-stakes cases will go where the relevant information is stored. Increasingly, as business changes how it stores its information, and litigators learn where to look for it, this will lead inexorably to ESI. Many may wish it were otherwise, but most arbitrators will be seeing discovery disputes targeting ESI in future cases.

Discovery disputes over ESI will raise new and different issues not encountered in the past in traditional discovery disputes over paper documents. ESI is harder to dispose of than paper records. It can be, and often is, edited continuously. It contains metadata not apparent on

the face of the document. It sometimes becomes obsolete or cannot be searched or retrieved without access to hardware that has become obsolete. It is easy to disseminate and may be stored in myriad, duplicative locations. It is searchable, in many instances. Id. (See also John M. Barkett, "E-Discovery for Arbitrators," 1:2 *Dispute Resolution Int'l* 129, 133-39 (December 2007)). Dealing with it can be hugely expensive. The quantities of information that can be stored are often staggering.

All of these characteristics mean that future discovery disputes over ESI will raise nuances not seen in traditional discovery fights over paper records. Some of these may include:

- Whether instant messaging and text messages, now common business communication tools, can be deemed ESI. This will raise privacy issues concerning employees. Other potential battlegrounds for discovery disputes may include VOIP, blogs, Facebook-LinkedIn MySpace-Twitter, YouTube, wikis, etc.
- Should the propounding party, or the producing party, have the burden of moving when the producing party determines that certain ESI is inaccessible?
- The sheer volume of ESI, and its minuscule subparts, ephemera and duplicates, complicates the review burden for the responding party's counsel. This could exponentially slow down an arbitration proceeding, which the parties often choose for its expedience. Yet slipshod review of millions of documents can be a client's worst nightmare. How will claims of inadvertent production of attorney-client privileged ESI differ from the current treatment of inadvertent production of such information via paper documents?
- What kind of foundation needs to be laid for ESI to be admissible? Will parties insist on the need to authenticate the computer and the processes and chain of custody used to enter, retrieve, and produce the data? For some early authentication resolutions, see, *Lorraine v. Markel Am. Ins. Co.*, 241 F.R.D. 534 (D. Md. 2007); *St. Luke's Cataract & Laser Inst. v. Sanderson*, 2006 WL 1320242 (MD Fla. May 12, 2006); *Clement v. Cal. Dept. of Corr.*, 220 F. Supp. 2d 1098 (N.D.Cal. 2002); *Guang Dong Light Headgear Factory Co. v. ACI Int'l*, 2008 WL 53665 (D. Kan. Jan 2, 2008); *Metro-Goldwyn Mayer Studios Inc. v. Grokster Ltd.*, 454 F. Supp. 2d 966 (C.D. Cal. 2006).

In addition, arbitrators, as well as courts, will be called upon to help fashion new guidelines for companies and litigation counsel as to appropriate "litigation hold" policies intended to prevent spoliation of ESI. These issues will require arbitrators to make judgments about whether and when to review the loss of electronic evidence as sanctionable. Practitioners also will be confronted with issues such as whether, and to what extent, the litigation hold notice will be protected by the work-product doctrine. See, e.g., *Gibson v. Ford Motor Co.*, 2007 WL 41954 (N.D. Ga. Jan. 4, 2007).

This process will not be easy: It will be complicated by the technological, and changing, complexities of ESI itself, and also by differing national and international perspectives about the appropriate standards. It will require pragmatic judgments by arbitral tribunals about what to reasonably expect of litigants in the rapidly changing world of ESI.

In the future, arbitrators will need to work out whether they will fashion and apply on a case-by-case basis a true rule of proportionality in the management of cases involving requests for ESI production. Tribunals will need to decide whether they will impose real limits on the expense and invasiveness of such searches, or whether they will sanction the broad ESI searches

increasingly becoming common in judicial litigation and confine their attention mainly to the issue of "Who pays?" for those searches. Among other things, these fascinating issues will require arbitrators to make judgments about whether U.S. judicial precedents give good guidance to the appropriate resolution of these issues, or whether arbitral tribunals should fashion their own, perhaps quite different, approach to giving content to the rule of proportionality.

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