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Keeping it Simple: Court-Provided Technology Brings the 'Electronic Trial' to the Ordinary Litigant

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Abstract

There is mounting evidence about the efficiencies generated by the use of technology at trial. The recent trial in Queensland in Covecorp Constructions Pty Ltd v Indigo Projects Pty Ltd proceeded as an "electronic trial" with the use of court-provided technology. It was the first of its kind in Queensland. The Court's aim was to find a means to capture the key benefits offered by trial technology, but in a way that was affordable for parties, was simple to use, and as a result would facilitate the adoption of technology much more widely than has been the case to date. This article explains the technology employed in this case and reports on the perspectives of all of the participants in the process. It also evaluates the potential for this approach to become normal trial practice in Queensland and elsewhere, and considers the means by which that goal might be achieved.

KEYWORDS: technology, electronic trial, court-provided technology, ECourtbook

KEEPING IT SIMPLE: COURT-PROVIDED TECHNOLOGY BRINGS THE 'ELECTRONIC TRIAL' TO THE ORDINARY LITIGANT

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1 Introduction

During the past decade, a number of trials have been conducted across a range of Australian jurisdictions with the use of technology. In most cases the matters involved have been large scale long-running litigation.

In some jurisdictions in Australia, specially-equipped courtrooms have been established,[1] but frequently the conduct of an electronic trial has required parties to bring into the courtroom all of the technology they require to support their case. Although there is no definition of an 'electronic trial'[2] this has typically involved

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1 The Supreme Court in Victoria, for example, has one of the world's most modern courtrooms, especially established in 1999 for the hearing of high-tech cases.

2 For consideration of the features which may be involved in the conduct of a trial electronically, and the benefits which may be brought to a trial through the use of technology, see S Jackson , 'New Challenges for Litigation in the Electronic Age', (2007) 1 *Deakin Law Review* 101-105. See

computers, flat screen monitors, digital projectors, a visual display system, and file servers containing databases with images of the documentary and other evidence to be presented at trial. The trials have been supported by commercial software applications[3] and in the usual course the parties have also appointed commercial service providers to install, configure and support the technology for the entire trial. At the conclusion of the trial the equipment has been dismantled and removed from the court.

The significant expenditure associated with this use of technology has been easily justifiable because of the scale of the cases in which the technology has been used. It is probably true to say that in some of these the use of technology has been virtually compelled because of the volume of documentary and other evidence to be presented and managed, to the point that a conventional paper-based approach would have been impossible.[4] In *Seven Network Limited v News Limited* [2007] FCA 1062, for example, the electronic database of discovered documents contained 85,653 documents, comprising 589,392 pages, and 12,849 documents, comprising 115,586 pages, were ultimately admitted into evidence.[5] After explaining the nature of the 'electronic courtroom' used in this case, Justice Sackville said[6]: 'It would have been virtually impossible to conduct the trial without the use of modern technology.'

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also A Stanfield, *E-Litigation*, Thompson Legal and Regulatory Group, 2003 at 71.

3 Commercial applications commonly used in Australian Courts include 'Ringtail Courtbook' from FTI (http://ftiringtail.com/web/), and 'Court' from Systematics (http://www.systematics.com.au/).

4 The Hon MEJ Black AC, 'New Technology Developments in the Courts: Usages, Trends and Recent Developments in Australia', paper presented to the Seventh Worldwide Common Law Judiciary Conference, London, May 2007 at 12.

5 *Seven Network Limited v News Limited* [2007] FCA 1062 at [15]. For further statistics in relation to the extent of the documentation in this case, see [11]-16].

6 *Seven Network Limited v News Limited* [2007] FCA 1062 at [10]. The judge subsequently noted (at [48]) that the writing of the judgment would also not have been possible without the electronic databases prepared for the trial and the search functions they incorporated.

KEEPING IT SIMPLE: COURT-PROVIDED TECHNOLOGY BRINGS THE 'ELECTRONIC TRIAL' TO THE ORDINARY LITIGANT

There is mounting evidence about the efficiencies and other benefits of the application of technology in the trial process. Available technologies are also reducing in cost and improving in functionality. In Australia, there are now a number of reported evaluations by the participants in electronic trials, and in particular by the presiding judges. Though not every assessment of the use of trial technology has been positive,[7] there is now considerable support for the view that the trial technology generates a range of efficiencies, including an acceleration of the course of the hearing in the vicinity of 25 to 30%.[8]

In the United States, Lederer reports 'anecdotal evidence' that evidence presentation technology saves a minimum of one quarter to one third of the otherwise traditional amount of time necessary to present a case, and that experimentation in the Courtroom 21 Project suggests a minimum savings of about 10% even in a short, one hour, case, with only a few documents.[9] There is also significant

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7 See the comments of Chesterman J relating to his experience as judge in the long-running trial in *Emanuel Management Pty Ltd v Fosters Brewing Group Ltd* [2003] QSC 205 in: Justice Richard Chesterman, "Managing Complex Litigation", address to the Queensland Law Society's Continuing Legal Education Program, 22 October 2003 at 2.

8 The Honourable John Slattery AO, QC, 'The Kalajzich Inquiry: Harnessing Technology' (1994) 6(11) *Judicial Officers Bulletin* 81; Justice Bleby, 'The First Electronic Trial, South Australian Supreme Court', paper prepared at the request of the Historical Collections Librarian of the Supreme Court library for the purpose of recording some of the judge's reactions as trial Judge to the electronic aspects of the trial in *Southern Equities Corporation Ltd v Arthur Andersen* (the trial began on 21 November 2001 but the case was settled out of court in May 2002), October 2002, at 1. See also the views of Tamberlin J in his summary of the issues in dispute and some of his key reasons for judgment (before publishing his reasons for judgment) in *Visa International Service Association v Reserve Bank of Australia* [2003] FCA 977.

9 Lederer F, "High-Tech Trial Lawyers and the Court: Responsibilities, Problems, and Opportunities, An Introduction", the Centre for Legal and Courtroom Technology and the Court 21 Project at: http://www.legaltechcenter.net/publications/articles/hightech.pdf.

evidence in the United Kingdom that the use of technology significantly reduces the length of trials.[10]

These circumstances challenge the courts and the justice system to find ways to ensure that the public funding to courts is applied responsibly and cost-effectively, and that the advantages to be gained through the use of technology are made accessible to, and manageable by, all participants in the litigation process.

The Supreme Court of Queensland has now taken up the challenge to find ways to make the benefits of technology much more broadly accessible. The trial in *Covecorp Constructions Pty Ltd v Indigo Projects Pty Ltd*[11] ('*Covecorp*') proceeded as an 'electronic trial' with the use of court-provided technology. The trial was the first of its kind at trial level in Queensland,[12] although court-provided technology has been successfully applied in three recent appeals in the Land Appeal Court.[13] The software did not enable all of the sophisticated functions of specialist commercial applications, but it did provide basic electronic functionality.

This article examines the experience in *Covecorp*, and reports on the perspectives of all of the participants in the process in this case. It evaluates the potential for this approach to become normal trial

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10 Lord Justice Brooke, Vice-President of the Court of Appeal (Civil Division) and Judge in charge of modernisation, 'The Legal and Policy Implications of Courtroom Technology: The Emerging English Experience', paper delivered at the International Conference at Williamsburg, 13.2.2004, at 5.

11 File Nos BS 10157 of 2001; BS 2763 of 2002. The trial commenced on 8 October 2007, but the matter was settled out of court on 6 November 2007 before completion of the trial.

12 The only other jurisdiction to have adopted a new approach to E-trials is Western Australia. The Supreme Court in that jurisdiction, in collaboration with the Department of Justice, has developed new software internally and has adopted a hands-on role to manage large trials internally. Rather than relying upon the parties to take the initiative and to appoint external service providers, it uses a combination of court staff and consultants who are appointed directly by the court.

13 The first of these was *PT Limited & Westfield Management Limited v Department of Natural Resources and Mines* [2007] QLAC 0121.

practice in Queensland and elsewhere, and considers the means by which that goal might be achieved.

2 A new approach in Queensland: the 'court-provided' electronic trial

The aim

The Court's aim in developing its 'ECourtbook', as explained below, and adopting this in *Covecorp* was to find a means to capture the key benefits of the identified 'new horizons' offered by trial technology, but in a way that was affordable for parties, was simple to use, and as a result would facilitate the adoption of technology much more widely than has been the case to date. In simplified terms, it was hoped to obtain the bulk of the benefits for a small fraction of the costs entailed in trials using commercial service providers and more advanced 'electronic courtrooms'.

The technology

Court layout and equipment

The trial was conducted in Court 14 in the Supreme Court Building in Brisbane. The courtroom is usually used for criminal trials and was one of the courtrooms which, in the first half of 2007, was equipped with a personal computer on the bench for the judge and one on the desk for the judge's associate. The room also had the requisite switching capability for the computers, and had an overhead projector and document camera. The necessary additional equipment was purchased and installed for the trial.

The judge's associate acted as the operator of the ECourtbook. She controlled the 'Court View' from her computer. There were separate computer screens showing the view as controlled by the Courtbook operator, located on the witness box, on the judge's bench, on each side of the bar table, in front of the transcript writers, and at each side of the bench at the front of the public gallery. The Court View was also displayed on a large screen at the front of the courtroom, where it could be viewed by participants in the courtroom.

The judge and his associate were supplied with their own personal computers (PCs), which were connected to the Department of

Justice network. Stand-alone computers were also provided for both of the parties' legal teams. Each of the stand-alone computer's display could be simply switched between the personal computer, and the 'Court View'.

The PCs used the court's Wireless Internet Access,[14] rather than being connected by cable to the court.

A document visualiser was located in the centre of the bar table for use by counsel for either party. The document viewer was connected to the Court View, and could display documents or any other physical evidence. By the use of the zoom and auto focus controls it could also magnify the evidence.

The ECourtbook

All of the documents required by either party to be available at the hearing were amalgamated into an agreed bundle. That bundle provided the central reference point as the collection of documents to which the judge, witness and parties' representatives referred. All of the documents in the agreed bundle were captured as multiple-page fully text searchable PDF files.[15]

The documents in the agreed bundle were described according to the document management protocol which had been agreed between the parties. Document management protocols explain how documents are to be managed. They set out how documents are to be numbered and scanned and the manner in which partially privileged documents will be handled. The protocol prescribes what information, known as 'fields' should be included, such as: date, document type, author, author organisation, recipient, and recipient

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14 The Queensland Courts established the Courts Wi-Fi Service during 2005-6. The service has established broadband wireless internet access in over 120 courtrooms in Queensland, including all courtrooms in the Brisbane Law Courts Complex. The service is provided without charge to court users. Further information on the Court's Wi-Fi Service is available at: http://www.ecourts.courts.qld.gov.au/3892.htm.

15 PDF stands for 'Portable Document Format'. This technology allows documents from other sources to be accurately reproduced on the internet, preserving the documents' layout, fonts, links, images etc. Searchable PDF format allows users to search for image data from full text, and to extract text data.

organisation. The protocol also explains how the information in each field should be provided. It may, for example, require that the 'author' in the document field should be described with 'last name first then first initial only.' If agreed protocols are strictly and consistently followed, it is possible to locate or identify documents within a database simply and accurately.

Each of the descriptive fields prescribed by the protocol could be used as a filter or sort facility so that users may view the agreed bundle ordered by reference to the descriptive field of their choice, depending upon their particular needs at the time.

The agreed bundle and witness statements were loaded onto the 'ECourtbook' for the trial. The software utilised in the ECourtbook was Microsoft Windows Sharepoint Services.[16] This software runs on a Microsoft Windows 2m003 Server platform. It was initially released as part of the Microsoft Office XP suite in 2001 and was available as part of MicrosoftFrontPage. As the Courts already had the necessary licence for the use of this package for all file and email servers there was no additional commercial licence fee payable. The use of this software also meant the court already had the developed expertise in house to support the software, and the only associated cost was that of customising the software for the trial.

The Witness and Expert component of the ECourtbook facilitated the amalgamation of statements from witnesses and experts and expert reports. Attachments to the statements were captured as separate documents. Each of these documents was described in terms of the agreed protocol, and was captured as an image that was full text-searchable.

The ECourtbook incorporated a facility for the upload of transcript at the end of each hearing day. This file, too, was fully text-searchable, and contained a full record of the day's proceedings in court. It was a simple procedure to sort through the transcript to view any particular day's proceedings. As with trials conducted

[16] SharePoint is a web-based collaboration and document management platform available from Microsoft. It can be used to host web sites which can be used to access shared documents and workspaces, as well as a range of specialised forms of applications.

using traditional paper-based procedures, it was the responsibility of the parties to organise the transcripts through the State Reporting Bureau and to pay the usual fees.

The representatives for each party, and the Judge and his associate, were all provided with passwords, enabling 24 hour on-line access to the ECourtbook.

The court prepared a user manual for the assistance of all participants, though with a view to developing a resource which would serve more broadly to facilitate electronic trials in Queensland Courts.[17] As the drafters of that manual explained, the ECourtbook was designed to:

- provide litigants, lawyers and the court with on-line access to all documents delivered to the court pertaining to a particular trial (the 'Agreed Bundle');
- enable a courtroom operator to maintain exhibits and assign exhibit numbers to documents from the agreed bundle that are admitted into evidence;
- enable a courtroom operator to identify documents that have been marked for identification;
- provide a central repository of full text searchable images of the agreed bundle, witness statements, expert reports and statements for viewing by all users; and
- provide end of day access to electronic, searchable versions of the court transcript.

The user manual gave users simple explanations, incorporating screen captures, of how to use the functions of ECourtbook, including how to filter or sort documents by fields, how to view documents, how to search for keywords, how to use the transcript view, and how to conduct a full text search of the entire site.

Provision was made, as explained in the user guide, for the upload in the course of the trial of documents which had not been included in the ECourtbook. The envisaged procedure was for such

[17] The manual was prepared by Ms Joanne Sherman, Director, Future Courts Program, and Stephanie Hill, Secretariat, Future Courts Program.

additional documents be burnt to CD/DVD and delivered to the Court's IT Services Section.

The process for referring any documents to a witness during the trial was for counsel to refer to the relevant document by the document's unique identifier number. The judge's associate, as ECourtbook operator,[18] would enter that identifier number into the ECourtbook and the relevant document would then be displayed on the large screen in the courtroom, and on all 'Court View' computer screens.

3 The experience in *Covecorp Constructions Pty Ltd v Indigo Projects Pty Ltd*

Case background

The claims in *Covecorp* related to two contracts between the plaintiff contractor and the defendant proprietor. The first was an earthworks contract entered into in the first half of 1998 (the precise date was an issue in dispute), under which the plaintiff agreed to carry out for the defendant earthworks for the defendant's shopping centre development at Keperra in Brisbane. The second was a building contract entered into in October 1999, under which the plaintiff agreed to build the proposed shopping centre for the defendant.

The agreed lump sum price under the earthworks contract was $500,000. The plaintiff had been paid over 2 million dollars, and claimed an additional amount in excess of $1,500,000. The scope of the earthworks was varied. The parties were in dispute about the extent to which the work as varied differed from the original scope

[18] The use of a court officer or other person independent of the parties to control the court display as 'courtbook operator' is the procedure traditionally employed with the use of commercial software applications, including 'Ringtail Courtbook' (FTI). The method of control of the court display now used with 'Court' (Systematics Pty Ltd) is for the legal team who are examining or cross-examining the witness at the time to control the court display. The 'Court' software was first used in this way in the trial in *Harris Scarfe v Ernst & Young (No.3)* [2005] SASC 407.

of works, which party was responsible for the design of the variation, and the proper basis for valuing the variation. The dispute was exacerbated by the fact that the parties were in dispute about whether a particular drawing concerning the scope of the work formed part of the original contract.

Under the building claim, the plaintiff claimed approximately $1,500,000 arising out of numerous variations. The defendant counterclaimed for $439,000 for loss of rent as a result of delays in opening the shopping centre.

Proceedings on the earthworks contract had been commenced in 2001[19] and the proceedings on the building contract started in 2002.[20] Both parties had made disclosure in 2003 in a form that was partly electronic and partly paper. It was nominally to a disclosure protocol established by agreement between the parties as required by directions by the Court.[21]. The plaintiff had provided some 19 CDs of materials. The CDs each contained about 800 pages of single page TIFF files.[22] Most documents that were electronic in their native form, such as emails communications, were printed onto

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19 BS 10157 of 2001.

20 BS 2763 of 2002.

21 This meant the disclosure had taken place prior to the introduction of Supreme Court of Queensland Practice Direction No 8 of 2004, 'Electronic Management of Documents', issued 13 July 2004. The appendix to the Practice Direction contains information about the contents of a document protocol. The Court released a sample document protocol for the guidance of parties at the time of issue of the practice direction. The Practice Direction is available on the Queensland Courts website at: http://www.courts.qld.gov.au/practice/pracdir/sc2004_08.pdf. The sample protocol is available at: http://www.courts.qld.gov.au/practice/pracdir/sc2004_08_Sample%20Protocol.pdf.

22 To view a document which is made of multiple single-page TIFF files, it is necessary to download a file (ie a single page), view that page, and then go back and download the next file (page) to view it. This may be contrasted with documents which are made of a single 'multiple-page' TIFF file, where the single file is downloaded. When viewing the file in a multiple-page TIFF viewer, the viewer enables the user to page through the various images (pages) in the file.

paper and scanned into the CD. The documents were prepared for disclosure in-house, but the imaging was outsourced to a litigation support bureau. There were a small number of documents, such as site diaries, which were disclosed in paper form. There were also a number of additional documents that were disclosed after the initial disclosure at the request of the defendant, such as accounting records, which may have related to the damages claim. The defendant had similarly provided an extensive volume of material on disclosure in electronic form using single page TIFF files, and also some paper documents.

The trials of both actions were to be heard together and had been set down for trial commencing 8 October 2007. It was clear the trial would be complex and involve considerable expert and lay evidence, and that questions of credit would play a significant role in determination of certain of the terms of one of the contracts.

The matter was allocated to Fryberg J after the judge to whom it was initially allocated withdrew because of concern over a potential conflict of interests. The estimated length of trial was 8 weeks.

At Justice Fryberg's request, a conference was held involving the parties' representatives and the judge on 31 July, and continuing on 1 August 2007. Justice Fryberg had some previous experience in the use of technology at trial.[23] He took the view at the conference that the matter was an appropriate one to be tried with the use of technology. Neither party had anticipated an electronic trial. However, representatives for both parties were conscious that disclosure in the matter had been undertaken primarily in electronic form and agreed to proceed to trial in this way.[24]

One of the matters raised by the judge was the importance of having the documents to be included in the ECourtbook in fully searchable multi-page PDF files. His Honour emphasised that, from his experience, it was of great significance to the smooth running of

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[23] Fryberg J presided over the trial in *Charter Pacific Corporation Limited v Belrida Enterprises Pty Ltd* [2002] QSC 254. That trial, which occupied some 157 hearing days over 18 months, proceeded as a partially electronic trial.

[24] Transcript of proceedings 31.7.07, pp 39-42.

an electronic trial that each document be available as a multiple-page file rather than a collection of single-page files.[25] Although it was initially contemplated that the task of converting all of the parties' documents to be included in the agreed bundle for the ECourtbook into searchable multiple-page PDFs would be outsourced to one common service provider,[26] the parties ultimately outsourced to the same service providers each had used when undertaking disclosure. Documents each party wished to be included in the ECourtbook, both initially and for some of the subsequent updates, were burnt to CD or DVD and delivered to the Court's IT Services Section for upload into the ECourtbook.

In his subsequent communications with the court's IT Services Section about the running of the matter electronically, the judge asked for the software provided for the trial to have a number of particular features. One of these was the ability for the witness to control the cursor when asked to look at documents in the ECourtbook. The judge also wanted members of the public attending the public gallery to be able to see the large screen showing the Court View, and for smaller screens showing the Court View to be available to the public in the public gallery. This increased the openness and transparency of the proceeding, and meant that interested members of the public were able to understand it to a greater extent than is possible in a paper-based trial.

As envisaged by Justice Fryberg,[27] the parties' representatives and the representatives of the Court's IT Services Section liaised on many occasions during the lead-up to the trial, and the court equipment and software, as described above, was in place at its start.

The trial commenced on 8 October 2007 but the matter was settled out of court on 6 November 2007 before the trial was completed. As the court did not sit on Friday afternoons or on three other days

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25 Transcript of proceedings 31.7.07, p 40; transcript of proceedings 1.8.07, pp 73-75.

26 Transcript of proceedings 1.8.07, p 76.

27 Transcript of proceedings 1.8.07, p 82.

during the trial period, there were in total approximately 17 hearing days.

Reflections from the legal teams

The plaintiff was represented by Holding Redlich and the defendant by DLA Phillips Fox. Although having general information technology support staff, neither firm has specialist information technology litigation support managers or staff.

The associate responsible for the conduct of the matter for the plaintiff participated as a member of a legal team in the electronic hearing in the HIH Royal Commission.[28] Neither he nor the solicitor assisting him had any other particular experience or expertise in the use of information technology, although both regarded themselves as an information literacy level which is above the average for senior litigation practitioners.

The particular Senior Associate and the then graduate clerk responsible for the conduct of the trial for the defendant had both become involved in the matter only about six weeks before the trial began. The graduate clerk was proficient in the field of information technology, being the holder of degrees in both law and information technology. However, neither of the representatives had any previous experience with the use of trial technology.

The limitations

There was a high degree of consistency in the feedback about the difficulties occasioned by the use of the technology. In separate interviews, the representatives for both parties identified the following as the key problems or limitations of the system they encountered:

[28] The hearing of this high profile enquiry into the collapse in 2001 of HIH Insurance, one of the largest corporate collapses in Australia's history, was conducted as a fully electronic hearing using commercial service providers. E-law Australia was responsible for project management for construction, implementation and management of the electronic courtroom, document management and processing services.

(1) non-compliance with document protocol

A range of difficulties was encountered because of the way that disclosure had been undertaken. Although a disclosure protocol had been established, and although the documents loaded into the ECourtbook as the agreed bundle correlated with the agreed document management protocol to an extent of approximately 90-95%, the small deviations from strict adherence to the protocol proved to be crucial, and caused a very significant number of problems.

The following were the most significant of the issues which arose in this context:

> (a) On several occasions more than one document had been coded with the same document identification number.
>
> It is fundamental to any document management system that the identification number allocated to each document must be unique. Although the errors caused considerable confusion, the difficulty was not insurmountable. When multiple documents were found to be in the ECourtbook under the same number the party seeking to tender a particular document selected the document that was required and tendered that document as an exhibit. When the particular document was chosen the Courtbook operator linked the next exhibit number to the chosen document. This ultimately solved any difficulties for the judge, who operated from the exhibit list.
>
> (b) On other occasions one document had been included in the ECourtbook under multiple document identification numbers.
>
> To overcome the resulting difficulty, parties seeking to tender a document which had been included under multiple identification numbers chose one of the available identification numbers when tendering the document as an exhibit or seeking to refer to it. The other copies of the same document were then simply ignored.
>
> (c) Sometimes the one document had been entered into the ECourtbook several times under the one document

identification number. This meant that, when selected, the document would appear to be many times longer than it was. It may have been, for example, that the document would appear to be thirty pages long when in fact it was a ten page document which had been entered into the Ecourtbook three times under the one identification number.

When this problem arose it was ultimately overcome by the party seeking to tender the document referring not only to its document identification number, but also then to particular pages of the document identified by that particular number. The Courtbook operator would then link the exhibit number to the particular pages referred to and note in the exhibit list that the exhibit was specified pages only of a document in the ECourtbook with a particular document identification number.

(d) Different interpretations had been taken of some aspects of the protocols which were insufficiently prescriptive.

(2) inability to rely on ECourtbook – paper files still required

Both parties found it necessary take to court paper copies of all or almost all of the documents which had been disclosed in the matter, although the primary reason given for doing this by the representatives for each party was different.

The principal reason given on behalf of the defendant was a realistic concern that documents to which it would wish to refer may not be included in the ECourtbook and it would be necessary in that circumstance to refer to the documents in paper form. The defendant attributed this difficulty mainly to the time frame within which documents needed to be prepared for inclusion in the ECourtbook. Although acknowledging that provision had been made for the upload of documents which were not on the ECourtbook by supplying them to the court on CD/DVD, the defendants' representatives found the time constraints under which they were operating meant they were unable to take advantage of this facility.

The plaintiff's representatives attributed the difficulty to the particular nature of the matter and circumstances of the case. The plaintiff initially placed considerable reliance on the documents in the ECourtbook. However, once the defendant commenced its cross-examination of the first witness for the plaintiff, it became apparent the defendant intended to call for a number of original paper documents and that issues of credit would be raised involving or evidenced by those documents. Representatives for the plaintiff initially proceeded to locate the required documents after the day's proceeding, but ultimately found it more efficient to have all relevant files in court so that the documents could be produced as and when called for. The defendant's position in this regard was that its attempt to obtain production of original documents from the plaintiff, ultimately by subpoena, was purely a disclosure issue which was not caused by the fact that an electronic trial was being held and was an issue about the adequacy of disclosure that would have arisen whether the trial was electronic or not.

(3) inability to rely on ECourtbook – paper exhibits

It was common that particular documents to be tendered as exhibits were not available on the ECourtbook. As noted above this may have been simply because they had not been included in the agreed bundle in time to be loaded into the ECourtbook, or because it was desired to tender an original paper document or a particular paper copy of a document included in the ECourtbook.

An associated difficulty flowed from the fact that the technology did not initially allow for the inclusion in the system of exhibits that were tendered in paper form. Accordingly the electronic exhibit lists had substantial 'gaps' in numbering. To obtain a complete exhibit list it was necessary to consider together the electronic exhibit list, along with the separate paper list maintained for documents tendered in paper form. The technology was adapted during the course of the trial to overcome this difficulty by allowing the recording of paper documents in the electronic exhibit list.

Key benefits

Both teams of legal representatives reported that all involved in the trial were generally comfortable with the use of the technology in

court. This included the witnesses, the judge, his associate as operator of the ECourtbook, counsel, and the parties' representatives.

The two particular features identified by both parties' representatives as extremely useful and productive of considerable efficiencies were the following:

(1) fully searchable PDF

Anyone involved in the trial was able to search the entire ECourtbook because all the documents it contained were in *fully-searchable PDF.* This meant, for example, that if in the course of the trial a particular document assumed some particular importance, it was possible to search the ECourtbook quickly to find any other document in which the document of interest was mentioned.[29] This was agreed to be the probably the most valuable feature of the electronic trial.

(2) witness control

Although the judge's associate controlled the documents which were shown on the Court View, the technology enabled the witness to use a mouse to scroll through any document in the Court View to any particular part of that document. This was a feature Justice Fryberg had specifically requested. It was commonly used by the witnesses. It enabled them to view any relevant parts of the document to understand its context and to locate quickly any particular part of the document to which counsel was referring. Both parties found it valuable that the witness could do this, and also that the witnesses could then use the cursor to point to particular parts of a document, especially when the documents under consideration were long documents.

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[29] The search function was one of the functions to which improvements were made by the court's information technology support staff during the course of the trial. It was initially necessary to search under one of the four directories in the database. After about the first week of the trial the search function was adapted so that it applied over the entire database.

The representatives for the plaintiff also identified a range of additional features as having proved over the course of the trial to be very valuable tools, including the following:

(1) accessibility of documents

The ECourtbook meant that almost all documents were accessible electronically in the courtroom and could be called up almost instantly. This meant that the equivalent of a room full of documents were at the parties' fingertips both in the courtroom and elsewhere. Although the plaintiff's representatives ultimately determined to have paper files available in court for reasons noted above, these were rarely referred to unless the defendant's representatives called for the production of an original document.

(2) export filtered items to excel spreadsheet

The technology permitted any of those involved in the trial to filter out any of the documents contained in the ECourtbook and export those documents into an excel spreadsheet. This meant that it was a simple process to create a subset of documents from the ECourtbook. It was possible, for example, to filter out all communications passing between two nominated individuals between two particular dates.

(3) sort function

The ability to sort documents by fields enabled the documents to be grouped under any of the available fields and located quickly. If, for example, counsel wished to view all of the documents dated between particular dates, these documents could be immediately identified and quickly located. Had the trial proceeded in paper-based form, it would have taken an individual a significant amount of time to locate and retrieve such documents, even if an index had been prepared in electronic form.

(4) swap between court view and own view

Any person with access to the ECourtbook was able to swap from the view displayed on the Court View to their own view whenever they wanted. The parties' representatives were able to use the stand-alone computers provided by the court, or their own

computers to access the ECourtbook and to locate the next document to which counsel would refer. It was useful for counsel in the process of examination of witnesses to have both the Court View and the intended next document at hand, as this generated time efficiencies and prompted appropriate lines of questioning. The parties' representatives supplied their own printers in the courtroom, and were able to call up and print any document that was being referred to in court.

Cost implications

The representatives for both parties concluded that the use of trial technology had not resulted in overall efficiencies and cost savings in the particular circumstances of this case.

Both found that the costs involved with the imaging of documents and subsequent conversion to searchable multiple-page PDF, along with the difficulties which resulted from deviations from, or conflicting interpretations of, the agreed protocol as discussed above, were significant.

Further, in the circumstances that eventuated in this matter, both parties ultimately felt constrained to take their files containing original paper documents or paper copies of native electronic documents to the court. The defendant's representatives attributed this to a lack of confidence that the documents they were likely to require would be included in the ECourtbook. The plaintiff's representatives attributed it to primarily to a concern that counsel for the defendant would call for original paper documents which would otherwise not be on hand in court, as had occurred early in the trial. From the defendant's perspective this problem was an issue about the adequacy of the plaintiff's disclosure rather than being related to whether or not there was an electronic trial. Both parties indicated that in the end result substantial efficiencies which might otherwise have been generated through reliance on the ECourtbook, ie a 'paperless trial' were not achieved.

There was a recognition by both parties, however, that the use of the ECourtbook saved considerable time which would otherwise have been spent in locating paper documents and in handing these to witnesses, between counsel and to the judge. Both identified

potential for a more significant time saving had the difficulties which have been discussed been reduced or eliminated, and all documents to be tendered been included in the ECourtbook.

It was concluded that the efficiencies which were generated by the use of the technology were counterbalanced by the additional costs identified. Although clearly it was not possible to conduct a cost/benefit analysis with any accuracy, the parties' representatives were in general agreement that overall the total costs incurred in trial preparation and trial to the point of settlement were roughly equivalent to, or possibly marginally higher than, those which would have been incurred had the trial proceeded in a traditional paper-based format.

Evaluation

It has been acknowledged that the representatives for both parties in this case regarded it as unlikely that the technology used resulted in any overall efficiencies. What is a particularly positive and striking feature of the case, however, is that both recognised without reservation that the technology which they used had the potential to generate enormous efficiencies in cases of this type.

Both parties attributed almost all of the difficulties which they identified to the fact that it had not been clearly determined at an early stage that if the matter proceeded to trial it would be conducted electronically. Both emphasised that although a disclosure protocol had been established, the parties' representatives had not seriously contemplated at the time disclosure was undertaken that the matter would proceed to an electronic trial. They attributed this as the probable reason for the fact that the electronic indexing had not always been in strict compliance with the protocol, and that no particular concerns had been raised between them about different interpretations being taken about aspects of the protocol which were less detailed or prescriptive. In the words of the defendant's representative:

> You can't retro-fit an IT-trial if the preparatory work has not been done in a streamlined fashion. The big problems here were not because of what happened six weeks before the trial, but what happened years before.

Representatives for both parties agreed, however, that that had it been anticipated at an early stage that the matter might ultimately proceed to an electronic trial, and a more detailed protocol for disclosure been agreed on and firmly adhered to from the outset, almost all of the difficulties they encountered would have been eliminated and the technology would have generated very significant time and expense savings.[30]

One of the solicitors for the plaintiff, who had participated in the electronic trial in the HIH Royal Commission, was able to make a comparison between the court-provided technology employed in *Covecorp*, and the software of the commercial service provider employed in the Commission. He acknowledged that there were a vast range of additional features available for the hearing of the Commission, but in his view most of the further features of the more advanced electronic courtroom were not heavily relied on. In his view the court had succeeded in *Covecorp* in achieving its aim of making the key benefits of an electronic trial available to all the parties simply and inexpensively.

As the representatives for both parties acknowledged and explained, an electronic trial would not obviate the need to examine original physical documents in the context of this trial where an important factual issue was whether or not an original physical form of a contract had been taken apart and rebound in a form different to its original form. Examining this issue entailed looking at ring binder markings and other forensic clues from original documents. Such an examination cannot satisfactorily be had only by resort to the electronic form of documents. However the need to refer to some specific documents in their original form does not detract from the benefits to be derived overall from the conduct of a trial electronically.

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[30] For judicial recognition of the impact of the timing of a decision to conduct a trial electronically, see *Kennedy Taylor (Vic) Pty Ltd v Grocon Pty Ltd* [2002] VSC 32. Byrne J observed in that case (at [17]): 'Experience shows that the later the decision to conduct the trial in electronic form is taken, the consequent savings of time and cost at trial and in preparation for the trial are less.'

The overall conviction of all practitioners involved in the trial that the technology employed has great potential for the conduct of litigation in a broad range of matters was perhaps best reflected by their eagerness to take part in electronic trials in the future. All expressed enthusiasm to be involved in using this technology at trial in the future. All also expressed interest in participating in matters which might involve the use of more advanced courtroom software of commercial service providers.

Reflections from the Bench

Judge's assessment

Justice Fryberg's reflections on the problems which resulted from the difficulties with document management and compliance with the established protocol, and the means by which those problems were overcome, were entirely consistent with those reported by the parties' representatives.[31]

The benefits of a broad range of features of the technology were also acknowledged. His Honour noted that the integration of the document viewer into the hardware was particularly helpful in light of the parties' need to refer to documents which were not in the ECourtbook. This feature meant that by the flick of a switch a court officer could enable witnesses and all in the courtroom to view various documents, such as colour versions of documents which were in the ECourtbook in black and white, or privileged or other documents which were not in the ECourtbook.

Justice Fryberg was very supportive of the decision to allocate the role of courtbook operator to his Associate. He said he found that this role did not intrude on her other duties at all. On the contrary, he said it served as a means of keeping her attention focussed on the documents and the trial.

Although the matter settled in the course of the trial, the judge noted that the use of the ECourtbook would have assisted him greatly with the preparation of his judgment.

Justice Fryberg's overall evaluation was that *Covecorp* was very successful *as a test case* for the technology. He noted that when

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31 See 'Reflections from the legal teams' above.

difficulties with the functioning of the technology were identified these were advised by email to the Court's IT Services personnel. With their assistance the technology evolved as the trial progressed and became significantly more usable.[32]

Although his Honour inclined to the view that the use of the technology produced some time savings[33] he agreed with the evaluation of all parties' representatives that the technology would have generated much greater efficiencies than were actually achieved if the difficulties which have been described were overcome, particularly those in relation to document management and compliance with the protocol.

The judge was very confident about the enormous potential of the technology as the way of the future. This was reflected in his view that, provided it was not too expensive in terms of any license fees or infrastructure costs, *the use of the technology should become the norm and it should not be restricted to particularly long and complex matters*. In the judge's assessment, it will be the familiarity with the use of the technology that will make it increasingly efficient.

Some recommendations

The judge did not wish to detract from his overall assessment of the success of the use of technology in *Covecorp* as a test case, however upon reflection he had a number of recommendations for the Court's IT service providers, and future participants in trials conducted electronically:

(1) Consistent with the views of the parties' representatives, the judge regarded it to be of paramount importance that the document preparation be undertaken with care, and that the agreed protocol be strictly complied with. His Honour emphasised that,

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[32] Key changes required in the course of the trial included the adaptation of the technology to enable a search over the entire database rather than only one of the four directories, and amendments to the functioning of the exhibit list so that it would always appear in chronological order.

[33] The judge noted there were three occasions on which the technology failed in the course of proceedings and caused delays, but this problem was very minor as the longest of these delays was about five minutes.

although the task may be outsourced to commercial service providers, parties' legal representatives must be actively involved in this process and ensure they have control measures in place.

(2) An alternative should be found to the requirement for counsel, when referring to a document, to refer to its full document identification number, for example: 'Cov dot zero zero one dot zero one two dot zero zero six.' In the judge's view this is a very unnatural way to address witnesses and the court and it was important to develop a method of referring to documents that is memorable, short, and easy to use. One possible alternative suggested was the use of a form of 'short-hand' reference to the required documents, for example: 'Could the witness be shown plaintiff's document one twelve six.' As the transcript is now produced from digital audio recordings, it would be feasible for the State Court Reporting Bureau to accept responsibility for completing the references in the course of the preparation of the transcript by adding the requisite zeros and dots to meet the numeration protocol. In that event the transcript would remain fully searchable for all occasions on which a document is mentioned.[34]

(3) The judge indicated that a valuable change to the transcript facility would be to extend the available functionality from a single word search facility so that Boolean or proximity searches could also be undertaken through the ECourtbook. The preferable course would be for the transcript to be indexed, with exhibits hot-linked, and a capacity available for judges to make annotations on the transcript.

The judge also thought that real time transcript would have been useful if it had been used in the trial, and found that there were a number of occasions during the trial on which he would have liked

[34] Another alternative is that used in the software of at least one of the commercial providers of courtroom software i.e. Systematics 'Court'. This software uses a second and simplified document numbering system in tandem with the fuller document identification numbers for all documents in the trial bundle.

to have been able to refer to a real time transcript of the proceedings.

(4) Consistent with the views of the parties, the judge indicated a preference for documents scanned into the database to be scanned in colour, indicating that this would have reduced the need to refer to originals of some documents which had been scanned in black and white.

This is an issue which may require some further thought as part of the process of adding colour documents into the database. Some caution should be exercised because the time taken for the retrieval of colour documents for viewing is very much slower than that for black and white.

(5) The judge had been unable to participate in training in the use of the technology as he had been on leave during the key period in the lead-up to the trial, returning only on the day the trial commenced. He found this meant it was almost two weeks into the trial before he felt fully in control of the technology. His Honour said it would be highly desirable for a judge using the technology for the first time to receive individual training.

Reflections from the Courtbook Operator

The role of operator of the ECourtbook was allocated to Justice Fryberg's associate. She admitted to being a little daunted initially, as she had no particular background or experience in information technology.

The training provided to her took about 45 minutes. In that time she was given an overall explanation of the functioning of the ECourtbook, and shown how to operate it, including how to call up documents, use the search function, manage the exhibit list, and pass control of the mouse to the witness. She found the operation of the ECourtbook very simple, and her initial concern was quickly dispelled.

She expressed the view that it was very appropriate for the role of Courtbook Operator to be allocated to the judge's associate, and that the tasks involved corresponded very closely to those she ordinarily performed in Court, but translated as appropriate for the

electronic environment. In her view, the only limitation that may occur for some associates was that the task did require a degree of proficiency in keyboard skills.

Her reflections about the difficulties occasioned by the technology, the means by which they were overcome, and the particular advantages the technology brought, mirrored those reported by the other participants in the trial. One particular change which she suggested for the future, however, related to the provision to witness of the mouse by which the witness could, when required, control the document displayed on the Court View. This facility was very helpful for the flow of examination and cross-examination of the witness. It had meant, however, that when the courtbook operator passed over control of the cursor to a witness to scroll through documents in the public view, sometimes for very significant periods of time, she was unable to continue working on her own computer. It would have been more beneficial if she were able to use this time to catch up on other tasks requiring her attention. This difficulty would have been overcome by the provision of a second PC for the courtbook operator.

As was the case with the other participants in the trial, she completed her experience with a view that the use of the technologies has potential to generate great efficiencies, and a keenness to participate in electronic trials in the future.

Proof of concept?

Despite the difficulties encountered in Covecorp, the employment of the court-provided 'electronic court' in this case must be regarded as successful. It realised a wide range of benefits, which were clearly recognised by all participants, and, more significantly, demonstrated the potential to achieve much greater efficiencies.

Had the trial proceeded to judgment, it is clear other benefits would have followed, including assistance for the judge in the preparation of his judgment, and the streamlining of the process of any appeal.[35]

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[35] Early in 2007 the Supreme Court initiated an electronic appeals book for appeals to the Court of Appeal. Queensland and Western Australia are currently the only two jurisdictions in which the use of electronic appeal books is part of the standard practice. The process of preparation

Consistent with the views expressed by the practitioners involved in this case, the conclusion must be that the technology employed has demonstrated suitability for construction matters of the nature of Covecorp. It would be equally helpful in any general and commercial litigation matters involving substantial amounts of documentation.

As has been noted, Justice Fryberg was confident the demonstrated potential of the technology to generate efficiencies justified its adoption in all matters. Perhaps it cannot yet be said to have been demonstrated that all trials should be conducted in this way, but there is certainly no doubt the technology offers benefits which justify its adoption in a wide range of matters, including those expected to run for considerably less than six weeks.

4 Conclusion: towards the future

Within the limitations that have been acknowledged, the adoption of court-provided trial technology was undoubtedly successful as a proof of concept.

The cost to the court of providing the technology, including the additional PCs and other computer equipment, along with the necessary adaptation of the software employed, was in the vicinity of $30,000. The adapted software and supporting user manual prepared by the Court may be evolved into a form suitable for everyday trial use. The hardware acquired for the trial is similarly available for use in future trials.

The Queensland Courts are in the process of fitting out the Banco Court in the Queensland Supreme Courts to facilitate electronic hearings, with necessary cabling under the floors and outlets under the judges' bench, associate's desk and the bar table.[36] The Court of

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of the electronic appeal book includes the scanning of all court documents and documents on the trial exhibit list. The use of the ECourtbook at trial meant that most of the requisite documents were already available in digital form and could be submitted on CD.

[36] As the Banco Court is used mainly for ceremonial occasions, the fit-out for the court must enable the simple removal and re-establishment of the necessary computer equipment.

Appeal is being similarly upgraded. This work is almost completed. Work is also being undertaken on a 'mobile solution' which will enable any of the courts, whether within the Law Courts complex or outside Brisbane, to be simply and economically equipped for the conduct of an electronic trial. It is anticipated the Court will have this capability before the middle of 2008. These developments mean that the Court is positioned to provide the necessary hardware and software for the conduct of an electronic hearing simply and inexpensively.

It is submitted, however, that the capability to conduct a trial with the aid of court-provided technology is only a component of what is necessary to achieve more broadly the recognised efficiencies and other benefits that the application of technology in the trial process may bring. It is significant to recall that the adoption of court-provided technology for the conduct of the trial in *Covecorp* came about because of the vision of Justice Fryberg as the judge to whom the trial had been allocated, and his recognition of the potential of trial technology as the way of the future. Although all the participants in the trial are to be commended for embracing the challenge presented to them, there remains the very significant hurdle of engaging the practising profession and the judiciary more broadly before the use of courtroom technology will become ordinary trial practice.

To overcome this hurdle there must be a framework by way of rules or a practice direction, or a combination of both, which will assist to bring about the necessary culture change in the profession and ensure that litigation practices evolve with the available technology.

A key component of that framework is a mechanism to ensure that information is classified consistently from the outset of the proceedings. If a protocol is adopted at the outset this means the necessary components can be put into the ECourtbook, or another case management database, if the matter is to proceed to trial.[37]

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[37] It was at one time important for parties to also agree on database software because although different systems could usually read the output of the others the conversion was not always smooth. It is now not necessary that parties agree on the same litigation support system.

It is essential this is done before disclosure is begun. If the documents are not initially processed in this way, and a decision is made to proceed electronically, all of the necessary information has to be prepared again. As the *Covecorp* experience demonstrates it is not only necessary to agree on a protocol at an early stage, but to ensure that protocol is complied with strictly.

The importance of classifying documents consistently from an early stage has already been recognised in Queensland, and is clearly the rationale for Practice Direction No 8 of 2004.[38] This practice direction acknowledges that 'Consistent use of agreed classification fields from the earliest possible stage should minimise the cost of managing both hard copy and electronic documents in both small and large cases.' It also encourages both the adoption of document protocols from the institution of proceedings, as well as the use of information technology to manage documents for disclosure, for interlocutory and directions hearings, and at trial. It is significant, however that the approach in the existing practice direction is to 'encourage', rather than mandate. Although the is a significant benefit for parties if they comply with the Form 19 guidelines and avail themselves of the sample protocol provided with the Practice Direction, it is fair to say that this Practice Direction has had minimal impact on disclosure practices in Queensland to date, and almost no impact in leading towards the broad adoption of technology at trial.

It is suggested that a mandated requirement for parties to meet to consider a range of issues relating to disclosure, including the adoption of document management protocols, would be a positive step in the right direction. This is a key component of the proposed strategy for the Federal Court of Australia[39] and also reflects the

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If they have agreed on the protocol at the outset then the data and images may be simply exchanged from one system into another.

38 Practice Direction Number 8 of 2004, Supreme Court of Queensland, 'Electronic Management of Documents', issued 13 July 2004.

39 K Dearne, "Federal Court finalises e-discovery rules" *The Australian*, 5.11.2007 at http://www.theaustralian.news.com.au/story/0,25197,22590494-17044,00.html

approach now taken under the Federal Rules of Civil Procedure in the United States.[40]

A similarly mandated requirement must also be included for the adoption of technology at trial, at least to the extent of requiring the parties to give consideration to whether the adoption of technology at trial will generate efficiencies. As the outcomes of the conference called by Justice Fryberg some two months before the date for which *Covecorp* had been set down for trial demonstrates, the value of such a conference is likely to be enhanced if it includes judicial involvement and direction. As the use of court-provided technology as adopted in *Covecorp* provides an alternative for parties that is simple, inexpensive and relatively easy for all participants to use, it may now be argued that a electronic trial of this nature should be the default position, with a trial being conducted either in paper-based form, or with the more advanced technology of commercial service providers, only where the court is satisfied this is in the interests of justice.

The introduction of the proposed Practice Direction in the Federal Court is keenly awaited and should be monitored with interest. Whether by adoption of that Practice Direction, by amendment to the *Uniform Civil Procedure Rules 1999* (Qld) or by the introduction of its own new Practice Direction, the courts in Queensland must continue their current efforts to ensure the efficiencies and other benefits which may now be achieved through the adoption of courtroom technology become part of everyday trial practice.

40 *Federal Court Rules of Civil Procedure* (US) rule 16.