
Selecting a Digital Dictation Solution

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As the vendors of traditional tape-based, or analogue, dictation or audio recorder equipment phase out their products, or spare parts become more difficult to source and therefore more expensive, pressure is mounting to investigate the viability of alternative technologies for the business critical process of document creation in law firms and corporations globally. The two most obvious candidate technologies are digital dictation (the routing of a digitally recorded audio file to a typist for transcription) and speech recognition (the PC conversion of an audio file to text).

In the latter part of the 20th Century, speech recognition seemed to get the jump on digital dictation, but in the early part of the 21st century, digital dictation is gaining favour. The reasons for this are generally thought to be that speech recognition:

- is still not accurate enough for the majority of users;
- tends to burden the dictation creator with editing and formatting;
- does not lend itself easily to sophisticated workflows;
- requires too much training of both system and user; and
- in many cases does not lend itself to a strong business case.

As for digital dictation, the exact opposite to the abovementioned objections is generally true. However, the technological,

operational and human resource considerations are significant when considering the replacement of a well-entrenched business process solution. When the plethora of brands and vendors of digital dictation is added to these considerations, contemplating the investigation can seem daunting. However, as with every complex undertaking, the best approach is to define the beginning and take one step at a time towards the desired destination.

It is the purpose of this article to assist with the definition of the reader's present situation as well as provide a framework for evaluating the possible destinations.

This article will set out a checklist of key issues to investigate when considering a change to digital dictation. Issues to be considered within an organisation when conducting this analysis include:

- the business need for this tool;
- the current technical / operational situation that causes consideration of this tool;
- what the current infrastructure will allow;
- the lawyers' needs;
- the secretaries' / typists' needs;
- the capabilities of the various digital dictation systems;
- the costs of NOT adopting digital dictation; and
- the costs of adopting digital dictation.

A clear understanding of these points will contribute to the building of a strong business case for digital dictation, and leverage as much value out of it as possible moving into the future. Of course, this article is not intended to provide an exhaustive analysis of the reader's current situation, or indeed all the technologies available, but it should provide a strong foundation on which to build an in-depth investigation.

Current Dictation Environment

Before the reader can form an educated opinion of where to go with digital dictation, an understanding of the current tape-based business process is required. Digital dictation installations designed to merely emulate the pre-existing tape-based process, have been replaced with other systems because the earlier installations failed to leverage what is possible with a better designed digital dictation installation. Understanding the current position is critical to plotting the next step forward towards a better process in the future.

Following is a set of questions that will help clarify the current situation within an organisation with respect to working practices and the real cost of the current process.

What specific challenges are being experienced with the tape-based system? e.g. end-of-life

tape fleet, costly repairs, new office, increasingly mobile lawyer, work-at-home typists or lawyers, client dissatisfaction from long document turnaround times.

What is the impact of these challenges? Understanding the impact will help quantify the real cost – not just in currency, but also in lost jobs on damaged tape, adversely affected client service because conference recordings were not clear enough to transcribe, excessive overtime, dissatisfied clients.

What needs to happen to make things better? Look beyond the obvious benefits of simply replacing tape. This is an opportunity to re-engineer a business process and really apply some leverage.

How many tape recorders are in active duty? This will assist when it comes to licensing discussions with the vendors who differ markedly in their approach – per seat vs per PC vs per lawyer vs per typist vs per concurrent typist vs enterprise licence.

How many tape transcribers are in active duty? See comments above.

How much internal desk-moving is there? Point-to-point systems, as opposed to workflow systems, can have significant licensing control issues with respect to changing the type of user on a PC. Significant movements can require uninstalling and reinstalling software, and this can significantly increase ongoing internal support costs. Active Directory services, roaming profiles etc all should be considered as part of this question.

Would the firm consider setting up a centralised Word Processing Centre? Many firms gain significant benefit from centralising WP, or at least in larger countries, establishing 2

centres to ensure "follow-the-sun" transcription support. It will also perhaps provide an insight into the labour costs that could be saved.

What would happen if digital dictation was not adopted? When quantified, this will help elucidate true costs, both direct and indirect.

If some digital dictation systems have been seen, what impressed or disappointed? Build a feature / benefit list and don't be afraid to ask the vendors to provide "in-the-field" proof of the claims made in their marketing material.

What would digital dictation need to do to compel an investment in it? This really cuts to the heart of the matter.

In an ideal world where anything is possible, what would really impress? Remember, sometimes the unexpected is possible.

Does the firm prefer to purchase, rent or lease IT needs? This will influence the way the vendors' proposals are presented.

What path would a pilot proposal take? Be clear on the path for a digital dictation project - must it go to the board?

Have any lawyers / secretaries used digital dictation anywhere else? Their opinions of the reality can be illuminating – both positives and negatives.

Does the secretarial department have any statistics on numbers of dictations, by whom, how long etc?

This will assist enormously with scoping the project. There is no sense in having too many licences and wasting money. Equally there is no sense in having too few and having to go "cap-in-hand" to the partners for an extension to the system.

Does the HR Manager have an overtime report for WP

Operators, Secretaries, PAs, Floaters and Temp Staff? Digital dictation can significantly reduce these costs if implemented correctly.

Does the incumbent tape system vendor have the ability to deliver a digital solution? You may be able to leverage the current support & maintenance arrangement.

How are multi-attendee conferences recorded and transcribed? When the secretary taking shorthand was finally replaced by the tape recorder, multi-attendee conferences or meetings became a real problem for the typist. Poor quality recordings always result in poor quality transcripts which can waste everybody's time – lawyer, typist and client. In fact, the ABSSI guidelines¹ state that it takes 5-8 hours to transcribe 1 hour of conference audio. Minimising this wasted time and potential occupational health risks would be valuable to the firm.

Lastly, ensure that the proposed digital dictation system integrates with any specifically designed conference audio recorder.

Although not exhaustive, the questions set out above will help an organisation build an understanding of its current dictation / transcription business process before embarking on the next set of questions below which are concerned with the infrastructure within which digital dictation will need to function.

Digital Dictation Infrastructure

Naturally, digital dictation by its very nature will be running on the firm's network infrastructure, so an understanding of that infrastructure and the various internal and external access points to it will be needed to ensure the contemplated digital dictation business process will run efficiently. The following

questions should assist with this analysis.

Is the infrastructure, including its support, outsourced to a 3rd party? Working with a 3rd party infrastructure provider may introduce both complexities and opportunities. Seek to understand their position on, and perhaps experience elsewhere with, digital dictation.

Do the lawyers carry Notebook PCs? If so, the remote access options are greater in number.

If they use laptops, how do they connect - VPN or thin client? A thick client connection will afford more options, whilst thin client architectures will restrict the number of options.

If a thin-client architecture is in use, what exact "flavour" is it? Some "flavours" are supported, some are not.

Do lawyers carry PDAs or Smart Phones only? If so, this will restrict the number of options.

Is there a full-time Wide Area Network connection between the offices? Or is it dial-up network only? Or is it dial-up internet access only? Both speed and connection type between the offices will have an effect on the way a digital dictation system can be deployed, and the vendors differ in their approach to this aspect of the installation.

What operating system is in use? Not all operating systems are yet supported by all digital dictation developers.

What email system is in use? Some systems are integrated with email systems and will therefore provide more options.

Are network log-on protocols supported? This can present both opportunity and issues.

Is document management in use, and if so, is it integrated with any

digital dictation system? By its very nature integration is bespoke. Seek to understand the exact nature of the integration both from a functional point of view and costs when either system is upgraded.

Are they integrated with other workflow systems? If so, it can provide some interesting workflow possibilities.

What database licensing implications will there be? A potentially expensive trap to fall into. Get each vendor's position in this aspect of the installation.

Is VoIP in use? Some vendors have integrations for this, but check the details carefully.

Lawyer's Dictation Needs

As much as possible, it is desirable that the impact of digital dictation on the lawyers is minimal. In fact, a well designed and deployed solution will often be met with enthusiasm when the previously impossible has become possible, such as transcription support after hours and from outside the firm.

The needs of lawyers fall into 2 categories – what they have always been able to do with tape systems, and what they could do with digital dictation. The following questions will help an organisation to define those needs.

Are the lawyers aware of the challenges prompting the investigation of digital dictation? This will help drive the process to completion. Try not to go this one alone -- it will be a tough internal sell when they are asked to pay for a replacement to a system they believe is functional.

How many lawyers are there in total? Not every lawyer uses transcription services, so there is no sense in buying digital dictation for them.

For those lawyers using transcription services, what is their preferred audio recorder interface – slide-switch or push button? Do not make assumptions. Project teams have sometimes emulated the incumbent interface only to discover that the other was more widely preferred.

How do the lawyers view the current tape-based system? If the majority feel there is no problem, then you will need to illuminate for them their unrealised needs and a truly compelling business case will need to be built.

Do the lawyers travel? The level of mobility of the legal practitioners will be an issue for consideration when deciding what method of remote access to the digital dictation system will need to be provided.

Do the lawyers second to client sites? How they are setup on site will influence the remote access options required.

How do the lawyers get transcription support after hours? This can be a key part of the business case.

Is there a senior partner willing to champion the pilot system? This will dramatically improve the likelihood of success of the project.

Secretaries' Transcription Needs

As much as possible, it is desirable that the impact of digital transcription on the secretaries and typists is minimal. In fact, as with the comments in relation to lawyers above, a well designed and deployed solution will often be met with enthusiasm when the previously impossible has become possible, such as working from home or highly efficient work sharing to avoid being required to stay back late.

Again, the needs of secretaries and typists fall into 2 categories – what they have "always been able to do with tape systems, and what they could do with digital dictation. The following questions will help an organisation to define those needs.

How many Secretaries are there in total? In preparation for the licensing discussion, an understanding will be necessary with respect to the total number of secretaries versus the Full Time Equivalent (FTE) number of secretaries, the greatest number of secretaries at any one time, and the distribution over the three 8 hour shifts of the day.

How do the Secretaries view the current tape-based system? This is an often under-analysed area. Poor productivity due to poor quality recordings costs real money. Also, their opinions may give an insight into any possible resistance to change, or indeed hidden resentment of tapes. Many secretaries immediately believe that their jobs are under threat. This fear will need to be assuaged.

How do Secretaries cope with a bunch of tapes dropped in their in basket? This helps clarify their level of advocacy for change.

How do Secretaries share the work within and between the practice groups? This will demonstrate whether they have a teamwork mentality or a solo mentality. Digital dictation opens up a world of opportunities in both flattening the peaks of workload, as well as providing skills-based routing, for example, some typists like to transcribe multi-attendee conferences.

How do the Secretaries cope with the jobs not completed during the day? Jobs that are left for tomorrow lower client service levels, jobs completed on overtime reduce profitability as

do jobs transferred to another shift.

Have the Secretaries been asked their opinion of the tape sound quality? Sometimes this is a very strong driver because poor sound quality impacts their ability to get their job done and it leads to dissatisfaction. It can also result in frequent interruptions of the lawyers as clarifications are sought, especially with multi-attendee conference audio recordings.

Is there a senior Secretary willing to champion the system? Secretaries are not in a position to approve the system, but they are certainly in a position to provide valuable advice on more efficient ways of working.

Are there Secretaries who could take on revenue generating work, or easily up-skill to do so? This will uncover hidden value in digital dictation from the potential redeployment of secretaries to paralegal type work.

Digital Dictation Capabilities

Digital dictation and transcription falls into 2 categories frequently referred to as "point-to-point" and "workflow". Complex workflow, either document-centric or relationship-centric, will mandate a system that can support these needs. Equally, the firm's requirements may be more modest and be adequately met by a point-to-point system.

The following set of questions will help uncover the real needs of the firm.

What digital voice recorders and transcription hardware types are supported? The Digital Speech Standard (DSS) is designed by the 3 major hardware manufacturers. As such, the hardware from these companies will be the most widely supported by all the digital dictation vendors. Seek to understand the positives and negatives of

tethered dictation devices versus the various mobile recording devices.

There are a number digital dictation systems that are not part of the DSS organisation, but have incorporated interoperability with the DSS file format. The level of interoperability for these vendors varies widely and therefore organisations should ensure they validate the extent of support for the DSS. There are a few digital dictation systems that are not party to the DSS, but do have compression algorithms.

Are the hardware drivers for the audio recorders and transcription hardware integrated into the software or do they run as a separate package? Being part of the digital dictation package makes for an easier roll out.

Can the software be rolled out to all PCs from a central point? If so, in how many packages? This is a major point to consider for the ease and cost of both initial roll out and updates / upgrades.

Can the system be centralised? Absolutely reliable WAN infrastructure will be needed if this approach is preferred.

Does the system have some automated process for database backups? This will be necessary to restore the system to the latest possible point in the event of a disaster.

Can the digital dictation system application service run in multiple instances, e.g. one in each office? This will provide failover protection, providing elegant disaster recovery and load balancing.

Can the system support multiple separate audio file stores? Keeping the audio recordings on the LAN will keep WAN stress to a minimum.

Does the system have a telephony dictation interface? Seek to

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understand the details of its level of functionality compared to the PC dictation interface.

What are the workflow engine's capabilities, i.e. flexibility, auto-escalate etc? If a workflow system is preferred, is it to be relationship-centric (lawyer / secretary) or document-centric (witness statement / deposition / letter / fax / conference recording etc).

Can the system receive audio recordings attached to emails, strip them out and submit them into the specific lawyer's workflow? If so, ensure that the details of its level of functionality compared to the PC dictation interface are understood.

Is mobile audio recorder synchronisation embedded in the digital dictation application? If synchronisation is separate to the application, this adds to the number of applications running on the clients.

Does the system support thin client for streaming both dictation and transcription? Some systems are one-way, some use thin client sound capabilities, some systems have optimised their own way of streaming. Organisations should be aware that there are significant differences in the systems.

Does the system support mobile audio recording device synchronisation over thin client? This can be very helpful for the lawyer who insists on using a mobile recorder only.

What is the system's management reporting like? Just saying they have reports is not enough – organisations should ensure that they get details as well as an understanding of the system's ability to tailor reports.

Is the system integrated with document management systems? Can it be? If so, ensure there is an understanding of what is

meant by "integration" as well as the positives and negatives of using that integration.

What is the size of the audio recording on the vendor's recommended setting? All the vendors will say that recording quality can be selected but organisations should obtain their recommended setting and pilot that recommendation.

In what audio CoDec's are the audio recordings within the system? Understand the reasons for the selected format.

In what format are the audio recordings when they are exported for archiving? This is a very important consideration in the age of electronic discovery.

Can the system slow down or speed up audio recordings during transcription? Most say they do, but organisations should test this in practice and note that some give very poor sound quality when speed is changed.

Does the system correct for pitch when it does slow down or speed up the sound files? An important consideration.

Does the system support roaming profiles? Exactly how do the systems accommodate the travelling lawyer?

Does the vendor offer 24x7 support? It may or may not be needed, but organisations should check what vendors mean if they say such support is offered.

Is the status of the submitted dictation easily monitored? Some systems do not provide a transparent work queue.

Does the system allow for dictations synchronised with a mobile audio recorder to be selectively submitted to the work queue or, conversely, maintained in the "Drafts" folder? Some systems automatically submit all jobs upon synchronisation and

thereby negate the advantage of having a "Drafts" folder on the mobile device.

Can the lawyer see who is actually transcribing the dictation? This can be very helpful for the lawyer to manage client expectations on the Priority 1 jobs.

What alerts are there for incoming jobs to be transcribed? Some systems have the flexibility of different notification methods for different priority levels.

Can a floating secretary / typist log on to another PC and see their work queue? Some systems only allow a single work queue to be visible, rather than a work queue specific to the typist.

Can a supervisor access a typist's work queue and reassign jobs? This can be very important if a typist rings in sick or goes home unexpectedly.

Is the system integrated with VoIP platforms? What do vendors claims about integration actually mean?

Does the system allow the transcriptionist to lock out a number of jobs, transcribe them and then synchronise back into the system? This can be very handy for the remote typist so that they do not need to remain permanently connected to the database.

What format sound files can the system import? There are many conversion utilities, but it would be best if the more common formats are supported, especially those from the Courts.

Does the system integrate with speech recognition in both front end and backend modes? Some lawyers are increasingly looking to speech recognition.

Is there a web-based administration screen for ease of access whilst off-site? This is

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especially handy for the law firm's own help desk if they are contacted after hours.

Does the digital dictation system's audio recorder application automatically save every few seconds to ensure recoverability in the event of unexpected PC shutdown? Despite it being good practice to submit multiple manageable sections of a long dictation, some lawyers will dictate very long jobs. They are likely to be unhappy if their PC crashes and the system did not auto-save while they were recording.

How do the dictations get profiled? Interface to practice management, DMS or matter management? Drop down list for field filling? By the secretary?

Can the system insert content into the sound file? Some systems can insert text, docs, images etc into the sound file. This can be useful if it is needed.

If not, can it make an association between the sound file and some other content eg template, precedent, hard copy etc? Lawyers will frequently refer to a document. It can be handy if the system can link to it automatically.

Is there a way to easily determine and handle those dictations that have "Hard Copy Edit" associated with it? This is a useful function to prevent typists in remote locations opening a job, realising it has associated hardcopy, and having to exit the job.

Does the system reconnect automatically to the network in the event of network outage? Users should not have to worry about reconnecting.

Can the lawyer dictate whilst not connected to the server? This can be useful in the event the network goes down as lawyers can continue to bill their time.

Can the dictations be password protected? Apart from the obvious advantages, this is also useful for the HR partner working on internally confidential matters.

Can the lawyer choose from workflows specific to their needs? Some systems are quite limited in their submission options - submission to a centralised work queue only. Others can provide more sophisticated options.

Can submitted dictations be recalled by the lawyer? This saves time and effort when the lawyer realises an amendment needs to be made.

Can the typist import a dictation for a lawyer, with the system ensuring the job is included in the relevant reporting statistics? This is useful for the lawyer who walks in with a lot of dictations on the mobile recording device and hands the device to the secretary.

Can "Chinese Walls" be set up? The ability to set up "Chinese walls" varies between systems.

On dictation, does the system continue to record for a fraction of a second after stopping or pausing to avoid voice clipping? It is very frustrating for the typist if the last part of each utterance between pauses is clipped. This will result in incomplete transcripts.

On playback, does the system automatically rewind some fraction of a second for ease of transcription? Tape systems have been doing this for years and an organisation's digital dictation system should too.

What sort of alerting system can be configured, eg for late jobs? Auto-upgrade to priority? Auto-re-route?

Can externally generated sound files (eg from the Courts) be imported and submitted to the

transcriptionist? The receipt of digital voice recorder files will be more and more frequent.

Is there an FTP upload capability? Useful for large sound files external to the firm.

Does the system have a 360 degree secure workflow whereby dictations can leave the firm to be transcribed by an outsourcer and returned? This will have increasing relevance in the age of non-core services, including transcription, being outsourced to virtual assistants.

What is the financial strength of the vendor? Investigate their corporate profile as well as their digital dictation project delivery experience.

What access is there to the digital dictation system developer? A very important consideration, especially for any development / integration work.

Under what project management methodology does the vendor deliver? A large installation will require formal skills and management of the project itself.

What reference sites does the vendor have who are willing to speak openly without vendor involvement? This will assist with obtaining honest appraisal of delivery performance.

Charles Christian of Legal Technology Insider maintains an invaluable source of information as to the technologies implemented by the top 250 firms in the UK². The Times newspaper of London also described Charles Christian's "The Orange Rag"³ as "the definitive online resource for the latest news about legal technology"⁴.

Another resource for staying up to date on issues specifically related to digital dictation and audio recording is the blog:

<http://audiorecorder.wordpress.com>

What training resources can the vendor provide? Rolling out to a large number of users will require significant training resources.

How are dictations reassigned from an individual typist's work queue? Some systems have "drag 'n' drop" capability for the supervisor.

Does the system have an API for integration to other systems? If so, what support is there for development work?

Does the developer provide an on-line resource for FAQs? This can be especially helpful for dealing with after hours issues.

Does the system integrate with a digital text entry tool? For the more technologically advanced user, this can create great efficiencies in the process.

Digital Dictation Costs

As with all considered purchases, there are costs of purchasing and opportunity costs of NOT purchasing. Building a business case will require an understanding of both.

What does the tape system support & maintenance cost? It is no doubt increasing each year as spare parts become obsolete.

What is the cost of floating typists? A well designed and implemented digital dictation system can replace the majority of this cost.

What is the cost of temporary typists? This is often a difficult

question as some partners are loathe to relinquish typist support. Do you need to replace a secretary who is on holiday?

What is the cost of the late return of transcripts? An unhappy client is a poor chance of repeat business.

What is the cost of the lawyers having to redo dictations because of poor quality audio on tapes? Doubling up on a lost or inaudible dictation is expensive. There is the direct cost of redoing the dictation as well as the indirect costs of time that should be spent on something else, as well as the delay to client service.

What is the cost of interruptions to the lawyer when they are asked to clarify what was said and who said it on multi-attendee conference recordings? Digital dictation systems were designed for close-to-mouth audio recording. They were not designed to be set in the middle of the table to record a conference of people. They are two very different things. It takes five to eight hours to transcribe one hour of conference audio, and it is a difficult task for the typist resulting in fatigue, incomplete transcripts and frequent interruptions of the lawyer to seek clarification as to what was said and by whom. Using a specifically designed conference audio recorder will lower the amount of time required to transcribe conferences, decrease the number of interruptions of lawyers, as well as provide a more acceptable situation for the typist from an occupational health point of view.

Does every lawyer dictate? This is an important licensing consideration. There is no sense in buying dictation licences for lawyers who do not dictate!

Does every secretary type? Again, this is an important licensing consideration.

What is the cost of support & maintenance for the digital dictation system? Ensure performance is measured as well.

What does the support & maintenance charge include? Version releases, point release, bug fixes, email support, telephone help desk, 24x7, "follow-the-sun". Ask the vendor to document the support and maintenance protocol, including response times.

How does the vendor license its solution? Is it by fee earner, by secretary, by both, by PC, by concurrent fee earner, by concurrent typist or an enterprise licence? Is there licence control built into the system to prevent inadvertent surpassing of the licensed number?

¹ Available from <http://www.obcai.com/index2.cfm?section=products>

² <http://www.legaltechnology.com/casestudies/TheInsider250.xls>

³ <http://www.legaltechnology.com>

⁴ <http://www.legaltechnology.com>