# A Revolutionary Web-based Database for Managing Case/Content Information

"Nobody can reach his full potential without Fastaction!"

A & U Data, MD March 21, 2019

#### 1. A Revolutionary Online Database (U.S. Patent No. 10,069,892 B2)

Fastaction is web-based database application for managing project information. It is a configurable database, accessed by various users on the internet, and it can change projects setting and database configuration instantly.

It is useful web database for law firms, small businesses, professionals, account firms, design firms, engineering firms, students, researchers, etc. The use environment can be changed instantly by using prebuilt configuration files. It can be configured as database, web site, training site, litigation project site, group bind, research bind, etc. It is fully searchable.

The data can be moved from server, departmental computer, personal computer, notebook, and even powerful phone. Data can be available in any places like conference room, special project sites....

The application can be installed on Windows, Linux, etc. It can be installed on server, department computer, site computer, note book and even some phones. Once a piece of information is entered into the database, it can be found from millions of others any time and anywhere instantly over the internet. For example, an attorney can find something that might be added six months ago... during a hearing, at trial breaks, in interviews....

It is the best tool for team work working over the internet. All advantages will be described under 11, 12, 14, 17, and 18. It can be configured to become a new ready-to-use new database application in seconds to hours time scale.

It will set a new standard in use versatility, application flexibility, data availability, search capability, data portability, data compatibility, data protection reliability, and user friendliness.

One application can be shown in www.igoosa.com.

#### A. General Features of Fastaction

#### 2. How reliable is Fastaction?

Fastaction prototype was developed almost ten years ago. Its development started around the network review model was first used. Nearly a decade effort has been directed to data protection and program perfection. It has passed a massive number of human tests and automatic tests. It is maturer than most entry software applications we know.

Its reliability lies in the huge effort in data protection concept and implementation and widest portability of the case data. Data can be protected in three forms: a database table, a project file, and a whole database. Moreover, any files used in the three forms of data protection can move from notebooks, personal computers, any cloud servers, and departmental servers. Fastaction is a server

application that is independent of operation system, and thus its data are safe without regarding Fastaction program. Its data can be saved, rendered, or recovered in another Fastaction system runing Window, Linux, Unix, and Mac. Even when the hosting data center, the hosting server, and the user's notebooks are all destroyed at the same time, its data can be recovered as only as one single copy of backup file exists. In the worst case, data can be recovered in a compatible database system even without Fastaction. Those features dramatically improve data availability and data safety.

#### 3. How easy it is to use Fastaction?

Fastaction is designed for laypersons to use and run. It is slightly different from conventional database/web applications. It is all about adding data records and retrieving data records over browsers. When a user knows how to use one single table, she or he can use any table that ever appears in Fastaction. There are some complex application modules such as name search, name sorting, and log productions. One can learn how to use them in less than five minutes. It may take 60 minutes to learn project management functions.

# 4. How stable is the Fastaction program code?

It is very stable. The application has developed for more than 10 years. It has been improved and tested in a long time. It is far more stable than known legal research tools. For example, when Relative was used in 2011, it clashed constantly. All other e-discovery systems can still malfunction from time to time. Data storage safety depends upon the underlying database applications, the hardware and operating systems. Operating systems such as Fedora 23, Linux (Centos), and Windows have been trusted by millions of corporate and individual users. Moreover, since all applications can automatically save data every a few minutes, data loss can be prevented.

# 5. How much time is required to back up data?

It depends upon hardware capability and data volume. In a ballpark, backup of 2 millions records takes less than 20 seconds. Backing up the whole project containing 5 millions records takes less than 1 minute. Restoration of case data takes no more than 2 minutes for small cases and 10 minutes as the outer bounds. Restoring a system using a database of five million records may take less than five minutes on a personal computer. It may take only 1/10 of time or less on a fast and powerful server. This time scale is very reasonable.

#### 6. Where I can install Fastaction?

Fastaction is designed with a final goal to run on every computer. It can be installed as long as java (JRE versions 7 or 8) can be installed and run and a relational database application MYSQL or other compatible can be installed. It can be installed on Linux, Unix, Windows XP to 10, and Mac. Extensive installations have been tested on Fedora 5-23, Cento 6.3-6.7, Windows XP and 10. As long as JRE can be installed, it is presumed to work on all Mac machines and Unix machines. It has been installed on Windows Notebooks, Linux notebooks, a large number of personal computers, servers, and two commercial data center (on public clouds). The only theoretical/potential barrier is potential conflicts which might be caused by hardware and other software in rare cases. Installation is as easy as installing java (JRE) and a database application. Any IP staff, computer science graduates, and most college students can install it by following our simple instructions. Fastaction is used to run the A & U Data business site. It has been deployed as a new search-able database site for distributing factual data for the public. See below for all options.

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# 7. What acquisition options are available to small firms?

#### Following operations are available to end customers:

A & U Data will provide following options for small firms:

- (1) Free limited legal version 3.00.
- (2) Full version with one full upgrade (custom made for platform).
- (3) Full version for six-month free trial.
- (4) Full version paid upfront at fractions of list prices.
- (5) Full version delivered on a ready-to-use cloud account.
- (6) Full version lease (on a public cloud on a monthly fee, hosted by a commercial cloud company). It may be leased on a project basis.
  - (7) Full version on a floater computer or a server to be delivered to a project site.
  - (8) Full version with one-full year deferred payment.
- (9) Other special options such mass installation of free limited legal version 3.00 on notebooks, development of batch file for Windows machines, and development of shell scripts for Linux machines can be arranged by agreement.
- (10) Any other special arrangements will be considered based upon first-come first-served basis.

We provide many flexible plans to eliminate any barriers for using it by any law firms.

# 8. What installation assistance can A & U Data provide?

If law firms want to install by themselves, A & U Data will provide required installation instructions on installing it. For free version Fastaction, we may provide limited help. For large scale installations, we may provide special installation programs (batch files for Windows or shell scripts for Linux). For unique and rare application environment, we can provide technical services on mutual agreed terms. We also consider any law firm's proposal on how to install Fastaction on their existing IT infrastructures. Potential joint efforts may include code migration to other production environments, use other database applications, or integration with existing software tools and e-discovery review platforms etc.

### 9. Can Fastaction work with other applications such as Relativity?

All known document review platforms focus on document processing and document distribution, but not on case knowledge distribution and information-information interactions. All review platforms do not have any of special algorithms such as name search, name sorting, and integrated log production method.... Document review platform and Fastaction are not mutually exclusive. Rather, they can work together to achieve best work products. Since Fastaction can be configured to become one of many possible applications, it can also work without a review platform. Fastaction can be loaded with documents for review for limited purposes. In compatibility, few review platforms that exclusively use TIFF or imagine files as delivery media are not good companions, but most, if not all, existing review platforms can work with Fastaction.

# 10. What are the intellectual properties in Fastaction?

A & U Data has right to use five U.S. patents in e-discovery information management system, foreign language review method, log production methods, document review technologies, and name

search algorithm. It has right to use two patents in data storage security and one in computation method. However, patents are only part of the intellectual properties in Fastaction. It is user-friendliness and interactive sophistication that really tells it aparts from all traditional server and database applications. A & U Data will rapidly improve this line of technologies in the future.

# 11. What are advantages of using a database approach over Windows files system?

Fastaction works like a file system over the internet. It is much more efficient for following reasons:

It allows users to search and find information from the entire storage space easily. Windows folder system has been developed under early technical limitations. For holding a small amount of information, it is convenient. It is the best system because users have gotten used to it. If task is to find any pieces of information from a huge amount of information, it is unworkable system. We just show feature comparisons between database approach and the folders and files system.

Tasks	Windows Folders and Files System	Fastaction (database approach)	Winner
Manage small pieces of information.	Not a good method, they have to be stored in files.	Enter them in database table and fully search-able.	Fastaction (No match)
Manage text files.	Three ways: (1) Find them by memory. (2) Search file names. (3) Index file folders.	Two Ways: (1) Store them in tables as search-able text. (2) Store them in a table with search keywords, notes, and titles	Fastaction because memory and file-name search are inefficient; and folder indexing is unreliable.
Manage database fields such as contact lists, client lists, mailing lists, or any data lists.	Windows is not good for managing such function.	Any data tables can be created from the user interface.	Fastaction
Manage binary data objects (images, video files, sound files, etc).	<ul><li>(1) Find them by memory.</li><li>(2) Find them by search file names.</li><li>(3) Use folder indexes.</li></ul>	Two Ways: (1) Store them as search-able binary data (limited success) (2) Store them in a table with search keywords, notes, titles (3) display as imagine or attached files.	Fastaction
Data availability/data remote access	Lack this capability, and even if folder's structure data is delivered by a web, it is largely useless.	Database has delivered information all over the internet. The information can be accessed from any person any time	Fastaction, big winner.
Create data objects	Create them and save them in folders	Create them from any user terminal and load them into database.	Fastaction (The time difference is negligible)
Data portability	Data is portable among	Data are more portable and can	Fastaction

	the same operating system.	be migrated to other machines w/different operation systems	
Team work use	No utility	It is extremely useful due to HTTP, real time input and search	Fastaction, bigger winner.
Data recovery	It depends upon specific nature of failure.	Recovery by using database dump files, and vendors offer such data recovery services.	Fastaction
Data compatibility	Files and data objects can be accessed by using right applications.	The database will not reduce data compatibility. Native file depends upon native applications. The whole database can be handled as a single piece	Fastaction
Change project configuration for any of many intended purposes)	After reconfiguration of the system, it starts from an clear operating system. No tailored functions.	It can become a new website, new database application, or new something.	Fastaction, the bigger winner.
Manage special projects over the internet for a group of users	Lack of such capability.	It is designed as the native application for interactive search.	Fastaction
Project data migration (move whole project data from machine to machine)	Lack of this capability.	The whole project data can be moved from Windows to Linux, to Unix or from cloud servers, departmental computers, or personal computers.	Fastaction
Project data archival (when a project is complete, the data is exported and saved as one single piece)	Lack of this capability.	Down loading the project to any terminal computer and store the database in any place. It will not missing any information.	Fastaction

For law practice, the folders and files system is NOT a suitable tool. The only reason for using it was lack of choices. The computer industry has used the database method since the beginning of the internet age, but high development costs, application deployment complexity, and special skill requirement had been the major reasons for using the old method. Fastaction has fully eliminated development costs and extended the database capability to every machine including notebooks, netbooks, tablets, and even mobile devices.

# B. Special Utility in Law Practice

# 1. What are advantages of Fastaction over existing legal software?

Existing legal software falls into two main classes: case management applications and case

research applications. Fastaction is none of them, but cover both of them. Now, all case management applications are developed according to sub-classes such as contract, corporation, patent.... Such case type classification is of little utility in practice of law because massive differences exist between any two cases in the same class. For example, we should see differences in a vard sale contract vs. a merger agreement, a patent on wine vs. a patent on chips.... In other words, imagined similarities, if any, are negligible compared with their real differences. A method for dealing with patent negotiation may be the best method to deal with tasks in a divorce. Those applications most likely force attorneys to do what the meaningless case classification forces them do and thus prevents them from achieving their full potential. Fastaction can become any one of thousands of varieties. Even though it contains fewer custom functions, its powerful search features, which can get every bit of information in the entire case space, and its unlimited flexibility, make it the best tool. For many kinds of research tasks, Fastaction is also superior to all existing tools due to its ability to improve data availability, search capability, data portability, data safety.... Just a single function, name search, can beat all varieties and species in document review. We all know that key components of legal practice are uncertainty, large number of variables, routine changes, and issue novelty. Real world cases always present new problems that no one can design for them in advance. No right software for them. Fastaction can address all those components that no vendor has ever attempted. Existing technologies of using folders and file system is an obsolete art, which is unfit for most tasks in practice of law. Stone tools were the best ONLY in the stone age.

## 2. Why should attorneys run Fastaction on notebooks and personal computers?

It is noted that nobody runs database on notebooks and personal computers. This is because computer development professionals never paid attention to the special nature of legal tasks. We provide four obvious use scenarios:

- (1). When there is a need to access a large volume of data but reliable access to an online server is not an option. This is NOT rare in law practice. This situation presents a need to move data from the server to a notebook so that attorneys can search anything from a big database.
- (2). When there is a need to search a large volume of data and the stake is so high that interruption to network services would cause unacceptable damages. Examples are critical case data for cases involving a large amount of damages. Whenever the stake is high, one has to consider a secondary data assessing method which cannot be interfered by adversary persons and third party hackers. Clients will not take chances when such a method is available.
- (3) When a great amount of research work must be done by a team of attorneys. This is also a nature of law practice. If all team members do their works separately, and then pool their work products together, the final product must be "disastrously bad" because everyone sees his own part of stories and facts. We know that even individually worked component parts will not fit into a machine well in production shops due to small departures in parts specifications. In law practice, factual findings, case impression, and litigation strategy can NEVER be based upon portions of case facts and materials. The fact that a case must be disposed of in just one final result is the strongest reason for using a WHOLE case approach. Fastaction will enable attorneys to access all findings on a needed basis in every step of the working process in real time and thus must improve their final work product.
- (4) When the amount of total information is sufficiently large that management of case materials by memory and the folder and file systems are unreliable. One scenario is that a single case has a sufficiently large volume of information. The second scenario is that an attorney has too much information in total so that it is very difficult to find his own information. Database is superior to the

folders and files system. Now, all big corporations manage their business data by using database-driven servers, while their employees, who do not have to deal with a large volume of information, continue to use computers as temporary work spaces. Many banks have stopped using personal computers completely.

The only factors against the use of database applications is once high development costs and use complexity. However, java now runs on more than three billion devices, and both database and the web application technologies have become very mature, and thus no technical limitations can prevent it from becoming a one-click art. When Fastaction becomes an easy-to-use application on notebooks and personal computers, database will take over notebook storage space, and the folders and files systems will become temporary work spaces. The demand for service performance and productivity overweight any concerns that once existed due to past technical limitations.

# 3. What specific problems does Fastaction address in law practice?

It can be better tool for addressing the following classes of problems:

Improve case information availability

No existing method can have the capability of tracking all case information in a single unit in the case lifetime. Fastaction can dramatically increase information availability as shown in the follow examples: (a) An attorney might have created some case notes, analysis, or memos, and he may need to find it many months or years later; (b) in conference calls or trial breaks, an attorney needs to find a piece of information immediately, and Fastaction can return the result in shortest time possible; (c) when an associate hands a case over to a new attorney, it is impossible for her to get all information from her notebook, and Fastaction allows her to pass one single database file; (d) it is the best method for tracking millions of pieces of information in a search-able form; and (e) in performing tasks under time constraints, it allows attorneys to find right information in the shortest time (a judge asks a question that must be responded in a short time; a conference call might raise an issue that must be addressed on spot for making an immediate decision; and information must be accessed when a fast decision must be made in litigation time scale....).

# a. Create work environment for all kinds of litigation tasks in shortest time

Fastaction is not a traditional application. It is a versatile case management environment that can work with all computer tools (such those loaded in Windows). It can be reconfigured in use period to create a new case working environment instantly by using any pretested configuration file. After the setup or configuration, it is ready to go without code modification, deployment, and further adjustments. The method eliminates program code further development, system deployment, feature testing, and 2-3 years code maturing time. It is for any types of cases and any purposes, with a data storage size from one database table to hundreds (only limited by your hardware). This cuts technical service costs dramatically. It has a full capability to store documents, video files, sound files or any digital information in any of created data tables. Upon setup, case information can be immediately added by attorneys at anytime and anywhere, and authorized users can retrieve any case information anytime and anywhere in the fastest way possible. This ghost application can be configured to become an e-discovery companion system, a file database, foreign language review assisting system, collaborative research system, information sharing system, log production system, name search and sorting system.... It cuts down code development and deployment time to zero. Its scope of utility is limited by your imagination.

b. Support routine changes in litigation tasks

You can make routine changes to the case working environment. Litigation's most difficult things are uncertainty and routine changes. Those are the main reasons why all known database applications and server application are unfit for use and that attorneys still have to rely upon folder systems. Fastaction is FASTER than changes you ever know. It may take only a few seconds to change its working environment from a simple system to any other complex systems. It takes seconds to set up or create a system for any common tasks such as first review, log production, foreign language review, and hot document review.... It often takes less than an hour to make required changes for creating an extremely unique working environment. It take a few minutes to fine-adjust the working environment. Even for a project that you could not define exact tasks, it can allow you to go right way.

For a giant new case with a massive amount of unknown information and new documents, you may start with one table and one possible task, add more data tables and more data fields, and more tasks, and keep adding and changing data types and fields in the existing tables, and keeping adding more tables. The core functions, table search, global search, sorting, name searches always work reliably. You even can change project name, user group, manager.... You can even load existing data, terms, dictionaries, templates, notes, analysis, and any digital data object into Fastaction. You even can change host machines around the world. You may start with a notebook with three users, move onto a premises server for ten users, move onto a public cloud server, or find itself in a giant data center, and may rest on a firm server after the case has slowed down or been litigated. There is no limit on modifications you can make as long as you follow a few basic rules on data protection common sense. The case data used in Fastaction is comparable with the used database system. When there is a need, it can be migrated to other systems. Fastaction teaches the right way of managing case information.

#### c. Create the best team work environment

Team work can be done though out human histories without using any advanced tools, but they have been done at much low efficiency and with all kinds of problems. With Fastaction, case information will be available to any authorized team users in your offices, foreign offices, courtrooms, conference rooms and even in driving cars. Case information will be available on negotiation tables, coffee tables, and mobile devices. Critical information could be updated any time and any places. When necessary, you can even load it on your notebook when good network access is not available or limited, or mobile devices are not convenient for intended use. This is truly the best litigation tool for teamwork. Fastaction can theoretically pool for all team members personal knowledge, wisdom, and personal strengths together in real time to achieve the best final work product, and thus reduce the chance to see disappointing final products characterized by conflicting decisions, self-defeating opinions, incomprehensible translations, conflicting terminologies, omission of critical tasks, and a massive number of redundancies. There is no reason for attorneys not to pull top teamwork performance.

#### d. Address poor performance problems in a network-based working environment

Fastaction can effectively address all known network-related inherent problems that are responsible for case mismanagement. Fastaction will enable attorneys to avoid making conflicting decisions attributable to attorneys' knowledge differences from accessing different case materials in a network-based task-divided working model. Fastaction is the only workable tool that can help law firms greatly reduce risks from coding conflicts, privilege information leaks, and exposure of sensitive information. It can reduce the risks of mismanagement that is attributed to unavailability of case information or a delay in finding such critical information. Fastaction is intended to dramatically reduce the chances of making fatal errors and improving legal services quality.

#### e. Improves data physical safety and data portability

By using existing case management method, it is difficult to tract and protect every piece of case data for any given case. While key data can be saved, data are always stored and saved in different machines at different locations. Thus, there is no way to save all case data by one single backup action. After a major event data loss on a personal computer, a server, or a department computer, some information might be lost. The cost of fix can be very high. With Fastaction, all case information can be protected and saved in one single unit. This approach will have huge advantages over the existing practice in preserving history files, transferring cases between different attorneys, changing principle attorneys, and accessing case data for subsequent litigation or re-opened prosecution.

### f. Improve document review performance

Fastaction can be configured as a document review assisting tool. Searching 50 names copied from email against a table containing thousands of attorneys, opposing parties and third parties is not a productive task for human beings. Fastaction can perform such a search and then marks out or highlight all known attorneys and privilege breakers so that the reviewer can make a professional judgment based upon search findings in the context of the document. It will dramatically improve the accuracy of privilege review. For a similar reason, Fastaction is the only tool for protecting sensitive information and trade secrets. In most existing review environments, not every reviewer can recognize all sensitive information and trade secrets due to lack of helpful information, personal knowledge limitation, use of unclear language, and abstract nature of information in documents.

# g. Improve attorney-client relationship

Fastaction will help law firms deliver better services for their clients because it can help law firms to reduce risks attributable to (1) misunderstanding of the case facts due to allocations of different case materials among attorneys, (2) conflict judgments due to attorneys background differences, (3) conflicting decisions due to their access to different case background information, (4) wrong decisions caused by time constraint in finding necessary information, (5) conflicting production decisions due to their reading of different documents, (6) wrong even fatal decisions due to lack of means for finding low-frequency information, (7) conflicting decisions due to attorneys' different interpretations of background facts, term usages, language, and culture, (8) conflicting decisions caused by relying upon different case facts, (9) inability to identify privileged matters and privileged transactions, and (10) inability to identify trade secrets and damaging information. With mountains of documents and limited case budget, best legal services cannot be delivered with using Fastaction.

Those sources of risks have existed since the arrival of the information age, but traditional computer applications were not workable solutions because they could not deal with undefinable litigation tasks and routine changes in litigation tasks. It was impossible to define unknown tasks and changed tasks by using data tables, data types, working environment, and unknown and unforeseeable intervening variables. Due to the inability to address the problems, law firms and courts have conveniently attributed poor litigation performance to the bad review products of document reviewers. In reality, we can easily prove that poor legal service quality is inevitable product in a network working environment. Fastaction, a product of more than a decade development, finally delivers a real solution.

#### 4. How can Fastaction be used as a general tool in law practice?

Fastaction can be used to manage all kinds of legal tasks. The following are just a few

## examples:

- (a) Legal brief templates. It can be used to manage legal templates in a way of meeting individual needs and use capability. After secretaries have entered such templates in Fastaction to reach thousands, attorney can find the most relevant templates any time instantly.
- (b) Case holding summaries. This research system can be built, developed to best meet special needs by taking into account individual preferences, coverage scopes, unique selection criteria, and special source file arrangements. It is better than a general database application.
- (c) Collaborative case investigation. Law firms often need to have a group of attorneys and staff to review documents, physical objects, analysis and reports.... Due to the amount of case materials, distribution of work tasks is the only way to meet firm deadlines. This can cause disparity in staff's access to case materials and can lead to all kinds of other problems. Fastaction can be quickly become a server for hosting teamwork project. Collaborative environment can be built by using even just a notebook or personal computer. It empowers everyone to access every important finding made by others. This can reduce conflicting decisions, bad discovery decisions, and exposure of risks.
- (d) Foreign language translation assisting system. In dealing with foreign language cases, Fastaction may be loaded with multiple foreign language dictionaries, special terms, case-specific terms, and professional jargon. It can dramatically improve term consistence in translations, and improve the accuracy and utility of documentary evidence.
- (e) Privilege review assisting tool. Fastaction can be used to dramatically improve accuracy of privilege review. By using its integrated name search algorithm, it can improve the accuracy of name search to avoid mistakes of failing to recognize attorney names, failing to recognize privilege breakers (opposing attorneys or adversary employees), and failing to recognize non-obvious privilege subjects. It can improve review products, improve litigation performance, and help law firms better protect the client's sensitive business information and trade secrets.
- (f) Fastaction has a full discussion blog, which allows all project members to discuss anything about the project. It also has a full web email for the entire group or system. The members can send messages to others concerning the project.
  - (g) Some included components can be used to manage billings, hours, and pays etc.

#### 5. Are data safe in transmission?

Data safety during data transmission is a common concern for all internet applications. SSL is a mature art and is widely used. Its real utility is questionable because most reported big data losses seam to happen not in the data transmission phase but in the data storage phase. Among all major reported events, data losses must have been caused by hacking whole password database, most likely with the help of insiders who know system design. No system would be designed with a method for downloading millions of user accounts. Encryption of data is a necessary measure, but host identity authentication by using a CA certificate is questionable because it would allow one more public entity to know the server and the site address, whereas such a working site does not present any identity issue: when a working site is controlled by the same entity, it does not present a situation for tricking public users to provide their secrets to a fake site.

# 6. How might Fastaction affect the cost to performance ratio?

For large and important e-discovery cases, the main purpose of using Fastaction is to control critical information, and client secrets, and improve coding consistency. In each case, there are only a

limited number of smoking guns or critical information. If a client insists that five or tens things must be protected, Fastaction is the most powerful tool to achieve that! To achieve the goal, all reviewers must try to really understand subjects and may not make a guess or an assumption in understanding terms, words, persons, products, and issues as reviewers had done in the old days. Fastaction dynamically cures reviewer knowledge deficiency caused by uneven allocations of case materials, and thus can end the bad practice of reviewing documents by guessing. So, Fastaction will enable the team to improve review accuracy. On the other hand, Fastaction can enable reviewers to save time by avoiding the time for doing manual "information searches" (e.g., checking 50 names against thousands or finding anything). Therefore, final costs would depend on how deep the review should be. A team can do much better review with Fastaction for a fixed review time. In contrast, for a case with little stake and no business secret, reviewing by guessing at the fastest speed might be a better option. The bottom line is case value and the client business value.

# 7. How does Fastaction fit to the legal industrial tread in consolidation, globalization, paperless offices.

Fastaction reflects the best appr**oach** for running paperless offices. Each case can be stored as one single database in clean cut. This file management method is the most convenient for frequent consolidations. Joining law firms can just bring their database files to the new firms. It is undoubtedly the most useful tool for supporting collaborative work in globalized practice environment.

### 8. How can Fastaction help law firms reduce professional risks?

Fastaction can help law firms substantially reduce the risks of making following embarrassing mistakes:

- (1) Avoid producing privileged documents as a result of the failure of one or more document reviewers to recognize a lawyer in a document.
- (2) Avoid making a bad claim of privilege as a result of the failure of document reviewers to recognize an opposing party, opposing attorneys, or adjudicators in a document. Fastaction can help law firms to avoid this worst kind of mistakes.
- (3) Avoid producing documents concerning work product due to the lack of creditable privilege stamp, non-obvious descriptive languages/terms, or difficult terminologies. Some document reviewers could not catch such documents because they did not access documents necessary for understanding those documents.
- (4) Avoid producing irrelevant documents containing the client's trade secrets, sensitive business information, and harmful information. Most technologies are too difficult for document reviewers to understand because they lack field knowledge and unfamiliar with the client company practices.
- (5) Avoid producing or creating incomprehensible translations in foreign-language cases due to well known translation terms multiplicity (a same document can appear to be hundreds of different documents due to using different people names, titles, locations, ways of expressions, plus normal inaccuracies, and differences in understanding).
- (6) Avoiding overlooking critical and rare documents due to misjudgment of document reviewers.
- (7) Avoid making useless efforts on meaningless legal issues and research tasks due to the failure of a review team to bring management's attention to critical and surprising evidence that could

materially change litigation objective, case strategy, and research tasks.

- (8) Avoid mishandling cases due to gross insufficient time for doing factual research in situations where the legal process suddenly raises critical new issues in cases where both parties have consumed all continuation allowances or the cases are locked in firm deadlines. This kind of situations are not uncommon and parties with better ability to retrieve and evaluate relevant facts will enjoy a big advantage.
- (9) Avoid communication difficulties in large cases between different attorneys in different law firms in cases where multiple law firms must work together for their common clients (or related clients). When such a complex case is handed over to new attorneys, the knowledge of those who have acquired case knowledge cannot be passed to the new attorneys. As Fastaction contains search-able information, it allows the new attorneys to constructively know all known case facts, and the new attorneys can always search and find anything any time. Fastaction data distribution method is more effective than training, conference calls, and email discussions.
- (10) Avoid too many follow-ups in communications with clients or client representatives. Clients always want to know certain things relating case progress, billing, and case merits. It is often hard to give direct answers and even surrounding facts. With Fastaction, more facts will be available for discussions on spots, this can make their clients happier. This can help the law firms avoid giving impression that the attorneys know little about their cases.
- (11) Fastaction may also improve legal service productivity by eliminating times that are normally not billable or service times of technical staff. The law firms can use the same case budgets on professional services, rather than on technical services such as migrating cases, installing computer developing programs, recovering damaged files, doing endless manual work, with endless time for fixing problems in products. It can help law firms get higher shares of case budgets.

# 9. How would Fastaction impact legal service delivery?

The network-based document distributed review model is responsible for many known problems: exposure of privileged, confidential, and sensitive information, and exposure of client's valuable business information, and overwhelming coding conflicts. The same problems have appeared in different forms again and again in different cases. A large number of litigated cases reflect the same problems. Dividing tasks among attorneys is easy, but finding a solution to overcome the impacts of uneven allocations of case information is really difficult. In each case, attorneys have to deal with different parties, different legal issues, different case materials, different background facts, different business subjects, and different people/employees. All of those things interact and collectively affect the determination of all disputed issues. The massive number of variables have been used as excuse of all those known problems. Nobody had tried to find a method that is able to combine attorneys' knowledge and ability in real time to improve the final product. Due to the large number of variables and routine changes, it was once impractical to develop custom server tools for each case because of prohibitory development costs, long development cycles, limited application utility, and expected code instability. Thus, all problems continued to harm legal service quality for more than a decade.

The delivery of Fastaction will mark the end of the era of reviewing documents by guesting and producing notoriously bad review productions, which are nearly useless, and frequently have been criticized by courts as "human errors" (very strong languages can be found in any those cases). Fastaction is the only tool for effectively protecting privileged, sensitive, and damaging information for clients. A & U Data now offers free version, free test, full version with all different payment terms, cloud version, all come in all common machines and common operating systems. Client's demand for

best legal service quality and law firms' need to protect their professional images will not met without using Fastaction.					
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