Intellectual Property Data Management Systems

By Donal O'Connell, Chawton Innovation Service Ldt., United Kingdom

Intellectual Property (IP) rights are valuable assets for any business, possibly among the most important that it possesses. It is therefore imperative that whatever **IP Data Management System** is in use is fit for purpose, and brings some value to those using the system, the IP processes it supports and the IP data contained therein.

There are **a range of systems available** to help manage the running of any Corporate IP Department and to help the IP personnel and others involved in the IP processes to perform their tasks effectively and efficiently. The growing strategic importance of intellectual property and patents means that there is a demand for better, more powerful systems and tools and for more and more applications to assist people who are directly and indirectly involved with intellectual property matters.

One important point to remember when selecting your IP Data Management System is that **your IP processes and needs are generally unique**. Therefore you should select tools based on your own particular requirements and not just because someone else has selected and is using a particular system or tool successfully. Of course, **benchmarking** systems and tools against others is a very valuable exercise but please bear in mind that other companies may have totally different processes and needs and therefore their systems and tools selections may, as a result, be totally different.

There are **an increasing number of IP Data Management System** providers in the marketplace, so you will have a wide choice from which to make your selection. There are also a number of large companies involved who can offer to provide a portfolio of patent systems and tools. There are also many smaller companies involved but they are often focused on very specialist patent systems or tools that are extremely specialised and attempt only to do one task well.

Selecting an IP Data Management System requires **a significant investment of a company's time, energy, and resources**. Due diligence during the selection process requires time and resources that must be subtracted from core operations. As a result, the cost of such a system begins before a particular solution is even selected, and extends long after it is implemented.

It is also worth noting that **changing** IP systems, tools or tool vendors is a huge task and not something to be tackled lightly. Much time and energy must be expended in order to guarantee success.

It is most important to realise that there are **multiple regimes of intellectual property protection**, such as patents, trademarks, designs, domain names and copyright. It is also important to take a holistic view of intellectual property rights, and to realise that the premeditated use of multiple IP regimes can help achieve sustainable differentiation. It is therefore imperative your IP Data Management System supports all of the IP regimes of interest to you.

Your system selection process should ask what top level **IP processes** are actually supported. These processes may include idea handling, obtaining IP protection rights, IP portfolio management, IP maintenance, the licensing, buying or selling of IP, and 3rd party IP risk mitigation. Note that many IP Data Management Systems started life as IP docketing systems and have expanded in scope over time.

The **vendor** of the system will influence your selection process. Who is the vendor, what is their portfolio of IP related products & services, what is the ownership and financial status of the vendor, what is their current industry reputation, what is their past performance like, are references available from other customers, what is the competitive situation regarding the vendor, and are there any existing agreements in place between you and the vendor, which need to be taken into consideration.

Some **historical information about the system** should be collection, such as who first developed the system, when was the system initially launched, who were the early adopters, and how has the installed base grown over time.

Given that your IP Data Management System will reside at the heart of your IP organisation, **system access** is a key issue for consideration. Who will need to access the system once operational - IP Management, IP staff (attorneys, paralegals, assistants), inventors from within the company, designers from within the company, business managers, technology managers, senior management of the corporation, external IP Agencies, external IP service providers, external inventors - and can the system support such diverse users.

IP Data Management System are typically sophisticated IT systems, so basic **IT architecture** questions will need to be asked and answered. What are the hardware and software requirements of the system. What is the basic IT architecture of the system (client server, web based, etc.). What is the recommended server set-up. What are the key building blocks of the system, for example what is the core database of the system. What is the expected performance of the system if set up and configured as recommended by the vendor. Just like many other corporate IT systems, **hosting** needs to be addressed. This basically asks where the servers hosting the systems are to be located - by the Corporation's own IT Department, outsourced to some 3rd party IT service provider, or by the IP Data Management system provider.

Links and interfaces to other systems will need to be considered as your IP Data Management System is not an 'island'. Interfaces to and inter-operablity with other systems of interest, such as your Corporate HR systems, your Corporate Financial systems (e.g. SAP), and standard office type systems & tools are of interest. Interoperability with other systems and tools in use across the key interfaces of any corporate IP Department, other IP systems, such as IP documentation systems and IP search and analysis tools will also need to be taken into account.

How is data going to be entered into your IP Data Management System, copied across from older IP Data Management Systems, manually entered, synchronisation with other IP systems and/or pulled from other non IP systems. Data Management System design and implementation errors can lead to 'dirty' data. However, good system design can for example help to greatly reduce data entry errors, by focusing on such issues as catching exceptions, formatting, buffering and the way in which choices and selections are provided to the user.

Data integrity is data that has a complete or whole structure. All characteristics of the data including business rules, rules for how pieces of data relate to each other, dates, definitions and lineage must be correct for data to be complete. Many IP Departments face problems with data integrity within their IP Data Management Systems, so systems having some built-in intelligence to help ensure data quality and integrity are of great value. IP data that has integrity is identically maintained during any operation on the IP Management System, such as data entry, data transfer, storage or retrieval. Put in simple business terms, IP data integrity is the assurance that the IP data is consistent, certified and can be reconciled.

Maintenance fees or renewal fees are fees that are paid to maintain granted IP in force. Some IP laws require the payment of maintenance fees for pending applications. Not all IP laws require the payment of maintenance fees and different laws provide different regulations concerning not only the amount payable but also the regularity of the payments. In countries where maintenance fees are to be paid annually, they are sometimes called annuities. Given that the payment of these fees plays such a key part in the IP process, questions need to be asked here. Does the IP Data Management System support your **IP renewal process**, and does it link to different IP renewal systems.

In the industrial design field of human-machine interaction, the **user interface** is the space where interaction between humans and machines occurs. The goal of interaction between a human and a machine at the user interface is effective operation and control of the machine, and feedback from the machine which aids the operator in making operational decisions. Consideration must be given to the user perspective of the IP Data Management System, rating the user interface design and **ease of use** as well as the overall **user experience**.

The **features and functionality** of the system tends to take centre stage. What are the **key modules**. What are the key features of the system. What is the major functionality of the system. Functionality is the

sum or any aspect of what the IP Data Management System can do for a user, and enables a user to have a set of capabilities. Functionality may or may not be easy to use.

Performance and reliability of the system is critical. System performance may be characterised by the amount of useful work accomplished by the system compared to the time and resources used. Depending on the context, good system performance may involve short response time for a given piece of work, high throughput or rate of processing work, low utilization of computing resources, high availability of the application, fast or highly compact data compression and decompression, high bandwidth and/or short data transmission times. So consideration should be given to the performance of the system, particularly under load and stress conditions. Other questions to answer may be the reliability of the system over time and if there are monitoring modules available to record such data.

System set up, configuration, and customisation are also important issues. What is involved in setting up the system initially? How is the software to be installed and initialised. Configuration is the arrangement of functional units in the software according to their nature, number, and chief characteristics. Often, configuration pertains to the choice of hardware, software, firmware, and documentation. The configuration usually affects system function and performance. How is this configuration by your IP or IT administrator to be handled. What is the level of configuration available? What is the ease of configuring the system? What about customising the system to your own liking. How is customisation by individual users to be handled? What is the level of customisation available? What is the ease of customising the system?

For many, **costs** will be one of the most critical factors to consider. What are the costs associated with the system. What are the initial costs. What are the costs over time. How do the associated costs break-down. What are the indirect costs. What are the maintenance costs. If a **license model** is involved, then is it host based licenses, concurrent users based licenses, or something else. Cost management will be one of the fundamental and yet most challenging tasks associated with selecting your IP Data Management System. Total cost of ownership goes beyond the initial purchase price or implementation cost to consider the full cost of the system over its useful life. A total cost of ownership analysis often shows there can be a large difference between the initial price and its long term cost.

What about **vendor technical support.** What vendor support is available pre-launch, at launch and post launch. What is the expected maintenance level required over the life-time of the system. What **training** will be provided. What training is provided pre- and post-launch. Who provides this training. What level of **training documentation** is provided. Does the training just focus on the system itself, or does it also cover associated processes, the data and associated IP / legal matters.

Regarding **user and system documentation**, how professional is the user and system documentation. How comprehensive is the user/system documentation. Who is the target audience for the user documentation. Documentation here refers to the multiplicity of documents in a chosen mix of media and with a certain collection.

Access control basically asks about read & write access to the IP Data Management System. It asks such questions as what level of read/write access control is available, if different user profiles can be established, if access can vary by module within the system and how access control is actually managed. As far as the IP Data Management System is concerned, access control includes authentication, authorisation and auditing. Access control models used by current systems tend to fall into one of two classes, namely those based on capabilities and those based on access control lists.

If certain IP work is to be conducted by **external IP Firms**, then what access do they have to the IP Data Management System to enable them to conduct their work efficiently. Similarly, if certain IP work is to be conducted by **external IP Service Providers**, then what access do they have to the system to enable them to conduct their work efficiently. For example, does the IP Data Management System support searches, docketing, data verification and/or renewals work being conducted externally.

The objective of IP Data Management System **security** includes protection of information and property from theft, corruption, or natural disaster, while allowing the information and property to remain accessible and productive to its intended users. Security means the collective processes and mechanisms by which sensitive and valuable information and services are protected from publication, tampering or collapse by unauthorized activities or untrustworthy individuals and unplanned events respectively. Specific security questions may relate to the level of data storage encryption and the level of data transmission encryption.

Upgrading the system should not be forgotten. What is the status with the ability to upgrade over time and adapt to future needs. Is there a roadmap from the vendor showing future enhancements planned.

Management of the system or system administration is an important issue to consider. Can the IP Data Management System be administered remotely or does it need local administrative support. What technical competences are required to manage the system.

What **search functionality** is built into the system. Is there basic search, quick search and advanced search functionality. This is especially important as the volume of data within the system increases.

The ability of the system to produce a portfolio of different **reports** is important. What reporting functionality is available. What type of reports are available. How easy is it to obtain good quality, useful reports out from the system. What is the reporting format. Can reports be generated automatically.

A variety of different selection criteria have been listed above in no particular order. However, it is clear from the items discussed that some serious thought and consideration is needed in order to select the best IP Data Management System to suit your needs now and into the future.

IP Data Management selection can be broken down into four main phases, namely **research, evaluation, selection and implementation**. This initial research phase consists of preliminary study and the defining of your company's IP strategy and tactics as far as their IP Data Management system is concerned. In addition, they need to know both their short- and long-term objectives and constraints with respect to their IP processes. During this phase, it's also important for you to review the IP Data Management System currently in place in order to gauge whether it is worth upgrading your current system, as opposed to acquiring an entire new system.

Once you have a basic grasp of the different functional requirements of the systems, you can begin to evaluate vendors and put together a shortlist of IP Data Management Systems for further, more in-depth analysis.

You benefit from your IP Data Management System only when you make the right selection. By using accurate and relevant criteria as listed and described above, you are better informed of your options. Using proper analysis, your selection team can make accurate assessments about how well a vendor can meet your needs, which should ensure that you select the most appropriate IP Data Management System.

The implementation phase is critical, where you need to continuously monitor that your interests are best served. It is imperative that your key IP personnel, your IT support personnel as well as the vendor collaborate together, and monitor, measure, and report on the progress of your implementation project regularly. Because implementation is such a complex process, you may find that you and the implementing party have different perspectives on many implementation issues. You may also find it a challenge to execute the implementation on time and within budget.

As stated initially, IP rights are valuable assets for any business. It is therefore critical that your IP Data Management System is fit for purpose, ensures the effectiveness and efficiency of your IP processes, brings great value to those using the system, allows you to convert the IP data contained therein into information, and ultimately helps IP to add value to the business.

For more information please contact:

Donal O'Connell
Chawton Innovation Service Ldt
United Kingdom
donal.joseph.oconnell@gmail.com
www.chawtoninnovationservices.co.uk