



Web Services Applications

Determining the Appropriate IP Protection

With so many of today's business operations relying on web services to conduct commerce, it's no wonder that the degree of product proliferation for web applications continues to increase at record rates.

In fact, the dot-com boom never really left us. We are now living a "networked reality" that closely matches all the hype heard in the late '90s. Consequently, it is no surprise that Intellectual Property (IP) has taken such an increasingly important role in protecting such a sought after market share in this highly competitive field.

As part of the networked reality, the market for web services has become progressively more crowded. Each prediction of its reaching a stage of maturity proves to be false as networking applications continue to reinvent the competitive landscape.

Now, with an explosion of mobile applications occurring on a global scale, the number of networked users continues to expand and promises to roll-on for the next decade. One of the unwanted side effects of all this proliferation is that copies and knock-offs of winning web creations also continue to arrive at a record pace.

In light of these trends, successful web service providers are advised to apply IP protections aggressively to maintain market share in a digital world where content, algorithms, and functionality can be easily duplicated by the competition. Even with the support provided by legislation, such as the Digital Millennium Copyright Act of 1998 <http://www.copyright.gov/legislation/dmca.pdf>, the task of policing web knock-offs is a continuous and challenging effort.

It is possible for each major form of IP to be applied in concert to effectively to protect a web services enterprise. While reading further, you should take note that maintaining these protections does not come free. The total costs can be significant. But the business costs of ignoring it can run even higher.



A comprehensive web service enterprise can use all of these IP areas to protect a variety of published materials and online processing functions:

- **Trademarks**
- **Domain Names**
- **Copyrights**
- **Patents**
- **Trade Secrets**

The role of these IP resources, as they relate to a web service business, is described in more detail below.

Once an enterprise's Sales & Marketing group settles on a trade name for a new business, expansion of an existing one, or new product line, a formal trademark proposal should be prepared. The goal is for the name of the business or product line to be identified under a formal, registered, *Trademark*.

Initially, the trademark proposal is associated with the "planned" portion of the Product Portfolio and approved by Corporate Governance. IP Legal will then conduct a search to see if there are any other companies/products using the name.

If there is a conflict, the process must be repeated until a suitable trademark is found. Preparation of a trademark application is the end result and may need to be processed in parallel with a product development effort or formation of a company.

Upon completing the new name selection process, the Internet Domain Name decision process may begin. The final "mark" is used as a basis for web domain name.

Many firms use the trademark for their company name as basis for a master domain name with the product lines as sub-pages under the company web page. In this case no domain name identification is associated with the product.

However, there are situations where a product trademark is so strong that obtaining a domain name matching the product trademark is deemed necessary. For example, the web page cadillac.com was created to support the GM's well-known Cadillac vehicle brand.

A company's trademark is normally expressed as letters or words contained in the domain name, with a collection of name variations created just to ward off would-be competitors. For example, a company named *Ford Motor Company*[®] may own the collection of the commercial domain names including ford.com and fordcredit.com. Ideally, one trademark is then expressed as the multiple domain names making up the collection under the same ownership, just separate divisions, or business interests.

Because *Domain Names* are centrally controlled by the Internet Corporation for Assigned Names and Numbers (ICANN), once ownership of a Domain Name such as google.com is cleared by ICANN and procured by the user, a web site can be immediately setup and brought online.

The domain name then becomes a functional entity using a networked host computer system. Use of the domain name continues as long as the maintenance fees are paid and its fair use remains unchallenged by a competitor. Thus, for web enterprises, obtaining rights to the Intellectual Property for a domain name should be done right along with the trademark process.

Since ICANN controls the usage of domain names on a global scale, literal knock-offs may be blocked very effectively. The design of the internet naming system makes it impossible to use a literal domain name that someone else owns unless ICANN allows it to be transferred to another owner. Transfer can be completed, with consent, from one party to another or it can be forced by ICANN using a legal challenge under arbitration.

Most companies follow the practice of obtaining the rights to the domain name collection, either at the moment their trademark is conceived, or later on, after the trademark is granted. Note that there is a distinct possibility that another party may apply for and get a domain name first.

In this situation the company can use ICANN rulings to "pull" the domain names representing owned trademarks from others. It is not surprising that people (Cyber Squatters) hold onto domain names and offer them for sale. Often, the price is set just below the cost of filing an ICANN challenge, and so it goes, another market opportunity.

When managing an online business, it is best to be focused on these parallels between domains and trademarks. It is often a cost effective procedure to apply for the collection of related domains when a trademark is first approved internally. Today, with nearly every business having a web presence, this is essential and should be part of any go-to-market strategy.

Each and every part of a web page's content can be protected under copyright law. This is because the ownership of content such as print copy, graphic designs, media presentations, photographs, and animations all fall under copyright law and may be registered nationally with the copyright office. For instance, if Sales & Marketing believes that special pictures and music are critical to making a website stand out from others, registering these items is very important.

Although any business is automatically protected to some extent if a copyright for the material is not registered with the copyright office, statutory damages available for registered material normally exceeds the actual damages.

Further, the dollar amount for actual damages must be proven in the event of a court battle. The threat of the 6-figure statutory damage fine is normally enough to get a good settlement and also to force an infringer to stop making illegal copies.

Due to the cost associated with formal copyright registrations, it is a good idea for Sales & Marketing to identify the main areas of the content that will be popular targets for illegal copying and flag them to Corporate Governance. IP Legal will then be able to keep down the overall cost of the registrations while still putting a very effective deterrent in place for cheaters.

Patents for web services can be tricky. There are many who believe that web services only can be covered by "software patents", but this does not have to be the case. In today's networked environment, with so many attached devices, it is not difficult to create a "web powered invention" that includes the control of special devices.

Once one or more devices are included in the mix, a patent with claims that include an "apparatus" or a "system" can be drafted to cover an entire web application. Additional claims can also be drafted for the methods that are used while the entire web service is applied to process useful functions. This can make a very strong patent.

For example, Product Development creates a web service that reads data from portable barcode scanners located in a supply warehouse to automatically lock and deduct inventory items as they are taken off the shelf. When orders are placed by customers over their smart phones, the customer always sees the correct real-time quantity of available items on the phone's display.

This type of web service is very patentable because of the devices (barcode scanner and smart phone) used. If the web service provides a tangible result where a user can "manipulate" an appliance, it is an excellent candidate for having a part in IP protection.



During the creation of a complex web service, engineers in Product Development often create an environment that is very complicated, required a lot of man-hours to create, and would tangibly benefit a competitor if they could get their hands on the source code and design data.

Also, the design is so proprietary that the methods used to solve the problem are not suitable for the public disclosure that comes with a patent. This type of Intellectual Property is referred to as a Trade Secret.

It is important that well-documented trade secrets remain securely stored and that the developers who are involved with it sign a Non-Disclosure Agreement (NDA). This agreement contains identifying information that puts the developer on notice as to what materials are trade secrets and informs them that the information should never be disclosed to any 3rd party.

There are various legal means to penalize those who disclose trade secrets. The protections that are available represent a significant deterrent to keep competitive investments intact.

A popular example of a Trade Secret is the Coca-Cola formula. It has remained with the company for years and has never been patented. Given the long life of this product, why do a public disclosure in the form of a patent that affords only 20 years of protection?

In summary, web services are not exempt from requiring the full gambit of IP. Do not skimp on this for a web enterprise. It is as competitive as any other publishing business and may also contain valuable utility functions that require patent protection.

With the way employees move from company-to-company, it is also important to school everyone on the seriousness of letting out secret data. This includes information that is taken home or developed off site.

When using contractors it is also important to lock in all of their work to maintain rights for everything that is created, and pay special attention to sticking with employees as inventors, should patents be created during a development project. Managing outside inventors has its own set of problems.

It is a good idea to get all of these items on the table when new products are conceived and development teams are formed; the earlier in the process the better.

Process Focus Areas

- Sales & Marketing
- Product Development
- Product Portfolio
- Corporate Governance
- IP Legal

