



The Intellectual Property *Strategist*

E-COMMERCE

Structuring U.S. Patent Applications to Protect Against the Foreign Activities of Competitors

By Stephen B. Parker

When e-businesses seek to obtain patent protection for their inventions, they must address the fact that their competitors, unlike brick-and-mortar companies, can be located or moved virtually anywhere in the world. One way of addressing this possibility—by filing patents in numerous foreign jurisdictions, an arguably costly and inefficient alternative—can be avoided in some cases by crafting U.S. patent applications so that they restrict the activities of foreign entities. This can be accomplished more easily if the e-commerce patent drafter is aware that (1) used properly, certain types of claim formats may limit foreign activities of e-commerce entities; and (2) design patents can be a helpful tool in guarding against the activities of foreign e-commerce competitors.

Nature of E-Commerce

E-commerce systems typically include at least one server computer that can be located virtually anywhere—e.g., in another country or

even in outer space (such as, for example, more than 22,000 miles above the earth in a geosynchronously orbiting satellite). With proper communication means and protocol, a server can link to a global network, such as the Internet, and provide services and/or information to client computers nearly everywhere in the world, including within the United States.

Typical e-commerce scenarios include the following key players.

- Manufacturers (i.e., creators of computer-readable media);
- Service Providers (i.e., providers of services via server computers); and
- End Users (i.e., users of services via client computers).

In contrast to articles of manufacture, e-commerce products and services often involve multiple components and/or multiple processes that may be performed by plural entities and/or at plural locations (e.g., worldwide). Moreover, e-commerce products and services are not transferred entirely into the hands of the end user, but involve processes carried out by both the end user(s) and service provider(s). This can complicate patent applications for e-commerce products and services because a variety of claims may be needed to

address the activities of various prospective infringers.

Illustrating these problems, the U.S. Patent and Trademark Office recently announced under its Second Business Method Partnership Meeting that the number of claims in business method patents, which at more than 25 claims per application averaged more than other technologies in 2001, has contributed to complicated examination and increased pendency periods (e.g., in 2001, more than 23 months before the initial examination).

Difficulties Related to Foreign Applications

For a number of reasons, including the aforementioned complications in preparing applications in the e-commerce environment, e-commerce patent applications have become rather expensive. Ever since the dot-com bubble burst, however, e-commerce companies have been on tighter budgets and often can not afford exorbitant fees for patent applications. This makes it more important than ever for patent attorneys to draft U.S. patent applications that may provide some protection over foreign activities.

Drafting U.S. patent applications that cover foreign activities is impor-

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tant for another reason: The United States affords the most credence to business method patents. As summarized in the Trilateral Business Method Comparative Study in June 2000:

“The consensus among the Trilateral Offices...is as follows. A technical aspect is necessary for a computer implemented business method to be eligible for patenting. In the United States, the ‘in the technological arts’ feature may be implicitly recited in the claim. The EPO [European Patent Organization] and the JPO [Japanese Patent Organization] require that the technical aspect be expressed in the claim.”

This consensus statement highlights that such e-commerce patents have not been as well received in other countries. To make matters worse, the EPO recently announced that it no longer would function as a searching authority under the Patent Cooperation Treaty in relation to business method patents filed by U.S. residents or nationals on or after March 1, and also has implemented stricter guidelines in relation to business method patents. (See page 7 for details.)

By carefully preparing U.S. patent applications that may provide increased protection over foreign activities, practitioners may reduce potential uncertainties related to the protectability of e-commerce inventions in foreign jurisdictions.

Offering to Sell and/or Importing Into the United States

Under 35 U.S.C. § 271(a), acts of infringement include “offering to sell” and/or “importing” a patented invention (e.g., an apparatus or composition of matter) into the United States. To address this genre of infringing activity by foreign entities,

a patent application drafter should define the claimed invention in a manner that covers the products that are or would be delivered into the United States. The following apparatus claim formats can be especially helpful in doing so when filing applications for e-commerce software systems:

Product-by-process claims. While product-by-process claims conventionally have been utilized largely in the chemical arts, such claims are applicable in other areas, such as in computer software applications. See, e.g., *In re Warmerdam*, 33 F.3d 1360 (Fed. Cir. 1994) and M.P.E.P. 2173.05(p). A product-by-process claim is a product (e.g., apparatus) claim that defines the product in terms of the process by which it is made. While the claim is defined in terms of process steps, the product itself must be novel. Such claims can be useful in addressing process steps carried out in foreign jurisdictions.

Computer-readable-medium claims. “A claimed computer readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory.” See M.P.E.P. 2106. This claim form can be a valuable tool because e-commerce businesses often deliver various computer-readable media into the United States.

Carrier wave claims. Carrier wave claims are directed to computer data signals embodied on a carrier wave. The U.S. Patent and Trademark Office has provided the following illustrative example of a carrier wave claim: “A computer data signal embodied in a carrier wave compris-

ing: (a) a compression source code segment comprising [code recited]; and (b) an encryption source code segment comprising [code recited].” See Examination Guidelines for Computer-Related Inventions, page 38 (March 1996).

Carrier wave claims can be helpful for situations in which a foreign server may transmit code or data into the United States, since transmission into the United States may constitute “use” and/or “importation” into the United States—something that may result in direct infringement under § 271(a). Moreover, offering such transmission to U.S. entities on a web site may constitute an “offer to sell” under § 271(a).

Computer memory, data structures and other article of manufacture claims. In addition to the foregoing examples, patent application drafters may create other claims applicable to the particular circumstances at issue, focusing on such articles of manufacture that are or would be delivered into the United States.

Inducing and/or Contributing To Infringement in the U.S.

Under § 271(b) and/or § 271(c), acts of infringement can include inducement of infringement and/or contributory infringement, respectively, wherein a foreign entity induces and/or contributes to a domestic entity’s direct infringement. These categories of infringement require domestic acts. Therefore, the claims should be crafted to recite elements occurring entirely within the United States.

System claims. Because inducement and contributory infringement require direct infringement in the United States, when filing system claims, patent application drafters should recite system “components” that are located inside the United

States. In this context, a patent application drafter should consider that a server may be situated in a foreign country and draft claims directed to components that would be within the United States. In many circumstances, this may be difficult because much of the novelty often resides in the programming at the server.

Process claims. Because, again, inducement and contributory infringement claims require direct infringement in the United States, when drafting process claims drafters should recite process “steps” that are located inside the United States. Once again, because a server may be located overseas, claims should focus on process steps that would occur within the country (e.g., from the point of view of an end user). Again, this may be complicated since much of the novelty often resides at the server.

Importing Products Made By Patented Processes

Under § 271(g), acts of infringement can include merely the importation of a product made by a process that is patented in the United States. In many circumstances, this may be the strongest avenue for thwarting the activities of foreign entities.

The patent application drafter preferably should define the “product” in the preamble of the claim in a manner to cover the products that are delivered into the United States. In creating such a claim, it is desirable to set forth clearly what form of “product” the claimed process creates. To preclude such infringement at a later date, it will be necessary to identify the importation of such a

product.

These claims may be used to cover the method for manufacturing virtually any product. Because some of the “product” types germane to e-commerce systems are generally new, a patent application drafter should carefully evaluate how to best define such products depending on the circumstances. Some such “products” applicable to e-commerce systems may include:

- computer displays;
- computer icons;
- web site interfaces;
- computer-readable media;
- carrier waves;
- computer memory or data structure;
- resulting services.

Regarding the last of these “product” types, one commentator theorized that “it is consistent with other parts of the patent statute to construe ‘product’ to encompass services that result from patented business-method processes.” See G. A. Stobbs, *Software Patents*, Second Edition, at 659. Products made by patented processes are also advantageously afforded additional remedies of enforcement via the International Trade Commission. 19 U.S.C. § 1337.

Importing Computer Icon Images

Design patents protect the ornamental appearance of an article of manufacture. The claims of a design patent are, in essence, drawings of the article of manufacture. In view of uncertainty in the industry, in 1996, the U.S. PTO announced that design patents are available for protecting computer icon images. 61 Fed. Reg. 11,380 (1996). Computer icons include images having embedded functionality (e.g., hyperlinks).

When preparing a design patent drawing for a computer icon, practitioners can “claim” the computer icon alone by depicting the computer screen in dashed lines. Thus, a design patent can be a useful tool to prevent foreign hosts from using servers located overseas to create infringing web pages that may be displayed on client computers in the United States.

Despite their availability and advantages, design patents for computer software inventions are overlooked by many in the industry. They usually are substantially less expensive than utility patents. In addition, under the patent damages statute applicable to design patents, 35 U.S.C. § 289, an infringer is liable “to the extent of his total profit,” while under the damages statute applicable to utility patents, 35 U.S.C. § 284, damages potentially may be at a reasonable royalty rate, which often can be significantly lower than the defendant’s total profit. Furthermore, under the new rules, examination of design patents easily can be accelerated. 37 C.F.R. § 1.155.

Conclusion

While e-businesses may exist virtually anywhere, there are concrete mechanisms for curtailing their activities. U.S. utility and design patent applications may be prepared in a manner that appreciably restricts foreign activities from inside the boundaries of the United States. In many instances, adequate protection may be available on a substantially global basis merely by filing well-crafted U.S. patent applications.