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Patent Strategy for Early-Stage Companies

The acquisition, development, and protection of intellectual property ("IP") rights, including in particular patent portfolios, is often fundamental to the success of early-stage companies. Patents are tangible assets that: (1) investors can directly value, (2) protect investment in the company's key technical innovations; (3) enhance the value of differentiating product features, and (4) preclude competitors (for a limited time) from encroaching into valuable, untapped markets or technology spaces. A strategically developed patent portfolio can also minimize litigation risk and raise revenue through licensing and enforcement.

Nevertheless, early-stage companies are often reluctant to invest sufficient resources in developing a patent portfolio because of limited capital, time constraints, and the more pressing demands of the company's operations. By approaching development of a patent portfolios with a strategic mindset, however, early-stage companies can more efficiently invest their IP budgets to develop assets that add real value. In particular, instead of the traditional approach often employed by patent prosecution counsel-which is often more focused on the total number of patents filed and granted—a strategic approach in which IP litigation counsel has early involvement can result in high quality patents that have the most utility. This includes a licensing or litigation context-i.e., when your patents are tested and need to prove their worth. This preparation can be accomplished with little to no added expense, as compared to the company's overall spend.

This note provides a set of best practices developed from advising early-stage companies how to develop a patent portfolio strategically. It addresses: (1) how to think about use of the portfolio, (2) how to identify and mine patentable inventions, and (3) how to develop a portfolio of quality patents that can achieve the full scope of the business objectives.

Building a Patent Portfolio – First Steps I.

A. Understanding the Goals in Developing a Portfolio

Early-stage companies must start with an informed understanding of the goals of developing their patent portfolios. Often patents are viewed as simply a basis to establish some level of value for investors, or a mechanism to protect technical innovations and provide some freedom to operate.

The value of a patent portfolio should go much further: The portfolio should ensure that the company has access to the technology needed for its products and services, not simply to protect its own technologies, but also as assets that can be cross-licensed to access other companies' inventions that may be necessary for continuing or expanding operations. By successfully anticipating market direction and future customer demand, a company can use a patent portfolio to create value by making it difficult for competitors to compete in untapped market areas without a license.

A patent portfolio can also be an effective tool to avoid litigation. By creating patent assets that can be targeted against a competitor's products or services, a company can create an equal risk (and the need for a cross-license) should a competitor assert its patents.

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B. The Patent / Trade Secret Decision: Determining Which Form of Protection Is Most Suitable for Your Innovations

An important preliminary consideration is whether particular innovations are best protected by obtaining a patent, or by keeping them confidential such that they qualify as trade secrets. In general, a patent grant provides the patent holder with the ability to exclude others (e.g., competitors) from commercializing the patented invention for a period of 20 years, even if the competitor deliberately reverse-engineers the idea or arrives at the solution independently.

However, obtaining a patent requires that the invention be publicly disclosed. A trade secret, by contrast, has no durational limit so long as the trade secret holder takes the appropriate steps to maintain its confidentiality.¹ Others, however, are free to use the idea if they independently arrive at the solution or successfully reverse-engineer it.

Deciding whether to seek patent or trade secret protection requires balancing several factors. First, it requires an assessment of the subject matter of the idea or invention, including the potential risk that a court may later consider the invention, even if patented, to be directed to unpatentable subject matter. Although one can obtain a patent on any "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof,"² laws of nature, physical phenomena, or abstract ideas are not entitled to patent protection. By contrast, the subject matter for trade secrets is broad, and can encompass many different forms and types of financial, business, scientific, technical, economic, or engineering information.

Next, consideration must be given to the costs and potential challenges of maintaining information as a trade secret. Because trade secret protection extends only for as long as the underlying information is kept secret, consideration must be given to whether it is practical to keep the innovation confidential. For example, if the innovation is readily ascertainable through reverse-engineering, or if it cannot be kept confidential from prospective customers or partners, and such parties are unwilling to sign an NDA, then patent protection is likely the better alternative.

A further issue is whether, by the nature of the particular innovation, competitors' technologies would be unascertainable through publicly available information. In that circumstance, a patent on that technology may ultimately prove to be of little value, as it may not be possible to identify potential infringers based on publicly available information and, thus, it may not be possible to enforce the patent. On the other hand, trade secrets offer a right against only unlawful misappropriation, which is the improper or unauthorized acquisition, use, or disclosure of a trade secret. As a result, bringing a lawsuit for misappropriation has its own challenges.

Ultimately, companies must evaluate these factors on an invention-by-invention or a technology-by technology basis. This evaluation can be readily incorporated into the workshops described in Section I.C. below.

¹ More particularly, trade secrets require that the information in question not be generally known, have economic value by virtue of its secrecy, and not be readily ascertainable through proper means (*e.g.*, reverse engineering, independent development, or most any other means excluding theft, corporate espionage, misrepresentation, breach of a duty to maintain secrecy, or use beyond a limited permission).

² 35 U.S. Code § 101.

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C. Patent Workshops - Identifying Inventions

To maximize the scope and effectiveness of a patent, its development should be integrated within the company's overall business processes. A first, critical step is to identify the homegrown inventions that are protectable. Rather than assembling *ad hoc* collection of ideas from employees (or relying on employees to submit ideas for consideration proactively), early-stage companies should establish regularly scheduled patent "workshops."

The focus of these workshops should be identification of protectible subject matters (as opposed to resolution of technical problems, or more general research and development activities). The workshops should include not only technical personnel, but also in-house or outside counsel who can, for example, interview technical personnel about current projects, technical problems they are facing, and how they are attempting to solve them. In general, workshops should be held at least quarterly. As the company grows, it may be necessary to hold workshops more frequently, or to hold separate workshops with different teams.

Critical to the success of patent workshops is understanding not only the research and development activities of the company, but also the competitive landscape of the industry. For example, identifying competitors with similar technologies and systems can help target IP investment in areas that have the greatest commercial value, identify white spaces where competitors have not yet established patent protection, and anticipate potential risks created by competitors' patent portfolios. Counsel should work closely with the company's technical and competitive marketing personnel on the best ways to conduct such analyses.

Companies that are most successful in efficiently developing a core set of enforceable patents often involve and rely on the advice of litigation counsel at this stage. Patent litigation counsel live where the rubber meets the road: where ultimate decisions on patent value are made when tested in courtrooms. For this reason, patent litigation counsel are generally best situated to advise on both how to identify and how to claim inventions that have the most value in connection with licensing or cross-licensing activities, and on how to develop a portfolio that takes into account potential risks and opportunities in view of competitors' activities and patent strategies. Further, patent litigation counsel will have the background and experience necessary to assist in evaluating whether particular innovations are more suitably protected as patents or trade secrets. In short, involving litigation counsel early can help inform your company as to which inventions are worthwhile to pursue, and thus enable you to invest your limited resources more efficiently.

II. Optimizing the Patent Portfolio

A. Developing the Patent Claims – General Considerations

Once inventions have been identified as candidates for patent protection, patent prosecution counsel can begin the process of drafting applications. At this stage, a number of basic principles should be kept in mind in preparing draft patent claims that can result in patents with the highest value, including the following:

• <u>Maximize Protectable Claim Coverage:</u> The value of a patent is tied to the scope of its "claims." The claims define the elements or steps that, if found to be included in a product or process, would infringe the patent. If the claims are too narrow (*i.e.*, listing

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too many requirements), they may not adequately cover relevant technologies implemented in the market (or even the company's technology), and thus may have little value. On the other hand, if the claims are too broad (*i.e.*, listing too few requirements), they may be more susceptible to later invalidity challenges based on pre-existing technologies. Typically, companies should submit a range of claims, some narrow and targeted to specific implementation-level details, some broad and covering the general principles of the invention, and several in between.

- <u>Evaluate Possible Design-Arounds</u>: Consideration must be given to how current or future competitors might compete with or design around the invention. Based on counsel's direction, additional patent claims can be drafted to cover those alternatives.
- <u>Evaluate Applicability to Other Products</u>: Consideration should be given to what other products might benefit from the invention, even if they are not in the same market, and to the development of additional claims to cover those products. For example, although the invention may be intended for virtual reality entertainment and recreational use, it may also have valuable application in other fields, such as medical diagnostics and surgical training, architectural design and construction, or vehicle operation simulations. This exercise often can lead to a discussion about how company leadership expects to expand its product offerings, and can open a dialogue about additional offerings.
- <u>Evaluate Your Competitors' Patents</u>: It is also critical to capture potentially valuable areas that your competitors are failing to protect. This is often referred to as "white space" analysis. Counsel can assist by identifying your competitor's patent applications and issued patents, evaluating the scope of coverage, identifying gaps between what competitors have claimed in their patents and what the contemplated patent claims cover, and identifying areas competitors have failed to claim.

B. Vetting Claims – The Critical Step in Developing a Strategic, "Litigation-Ready" Portfolio

After prosecution counsel has prepared an initial draft of a patent application, a key next step in developing patent claims with maximum utility is to have those claims reviewed by litigation counsel, both at the pre-filing stage and as those claims may be amended in prosecution. Litigation counsel will have the best insight as to how patent claims will be asserted in a licensing or litigation context, how they may be challenged by an adversary, and how they may ultimately be perceived by a jury.

Some areas where litigation counsel's advice can be of substantial benefit beyond the general considerations described in Section II. A. above include the following:

• <u>Claim complexity</u>. In general, prosecution counsel tend to focus on drafting claims that match the information and descriptions provided by technical personnel, and that meet the basic statutory requirements for claims to be allowable when reviewed by an examiner from the USPTO. This can result in patent claims that are overly complex, technical, and difficult for a layman or even a judge to follow. However, claims (for the most part) are construed by a judge, and then applied by a jury, neither of which

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is likely to have meaningful technical background or experience. Litigation counsel will have the most direct experience with how claims are applied in practice, and can provide guidance on simplifying claims so they are readily understandable by those whose understanding is most important.

- <u>Potential non-infringement/design-arounds</u>. A potentially significant challenge in claim drafting is preparing claims that can withstand arguments by an adversary seeking to find weaknesses to prove non-infringement. Such weaknesses can include: (1) claim terms that are subject to a narrow claim construction (because of the terms themselves or how the corresponding functionality is described in the specification), (2) terms that are added during prosecution to overcome prior art, but give away desirable claim scope, or (3) narrowing terms that are unnecessary for patentability. Again, litigation counsel will have the most useful experience with how such claims may be challenged (putting themselves in the position of a potential adversary), and thus can assist in revising claims and specifications.
- <u>Validity challenges</u>. Although prosecution counsel tend to have a strong command of the requirements for patentability at the application stage, they generally are not as well versed in how patents are subject to challenges in practice (*i.e.*, at the licensing or litigation stage), including dealing with ever-changing law governing subject matter eligibility, written description, indefiniteness, and other issues. Litigation counsel will have the best command of developments in patent law, and can apply their expertise in testing draft claims to identify potential validity issues early on. Moreover, litigation counsel can provide informed analysis of potential prior art (including conducting targeted prior art searches as appropriate), and of how claims can be drafted to avoid prior art while preserving maximum claim coverage.

One process that has proven particularly beneficial for early-stage companies in developing their patent portfolios is to have regularly scheduled patent application review sessions with litigation counsel for patent applications in various stages of prosecution (from pre-filing to issuance). The scope and timing of such patent-vetting sessions depends on the number of applications in consideration or on file at any given time, but in general, these sessions should be conducted on at least a quarterly basis.

C. Additional Considerations to Maximize Enforcement Potential

Several considerations should be taken into account to maximize the company's ability to enforce its portfolio, in terms of preserving both flexibility and geographic scope.

• <u>Leverage Amendments and Continuations in Pending Filings</u>: Sometimes, after a company files a patent application, a competitor may release a product that directly competes with that invention. The original patent application may disclose in the specification (but perhaps not specifically claim as a patented invention) some of the features the competitor has just released into the marketplace. However, as long as the patent application is still pending, the company can either: (1) amend its claims to cover the relevant features, or (2) file a continuation patent application based on the original filing and pursue another patent that includes claims covering those features.

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Accordingly, pending patent applications should be reviewed to make sure the company is capturing all current and anticipated competing solutions that can be fairly traced to the disclosures of those applications. It is a best practice to keep prosecutions "open" by filing continuation applications to be able to protect after-acquired technology.³ Litigation counsel can advise on the drafting of new or amended claims in ongoing prosecutions to ensure they cover the appropriate features and claim scope.

• <u>Evaluate Where Patent Protection Should Be Sought</u>: Patents are a creature of national law and therefore are enforceable only in the countries where they were filed and granted. Consideration should be given to the jurisdictions in which the invention will or might be put into practice (*i.e.*, where it will be made, used, sold, offered for sale, imported, etc.). With the assistance of counsel, a company should make determinations as to which jurisdictions will create the most value for the business, and should consider whether to file for patent protection in at least those jurisdictions.

If there is uncertainty concerning which markets will be entered, and a deadline to file patent applications is approaching, consideration should be given to filing a Patent Cooperation Treaty Application (commonly referred to as a "PCT Application"). A PCT Application is an international patent application that extends by 18 to 30 months the time to apply for a patent in over 150 countries.⁴ During that time, the company can decide in which countries it makes sense to obtain protection and then timely apply for it.

Experienced litigation counsel with a global presence can provide a company with insight into the jurisdictions that provide the most advantageous protection and enforcement terms. For example, although the U.S. is often considered the most important jurisdiction for obtaining patent protection, Germany is the second most important and is often overlooked as an essential jurisdiction for protection. In Germany, infringement and validity are adjudicated separately, with infringement determinations occurring faster than validity determinations. Unlike in other jurisdictions, a finding of infringement in Germany generally results in the additional benefit of an automatic injunction against the infringer even before a determination has been made concerning the validity of the patent. This creates significant value and leverage for a patent owner.

III. Conclusion

Although developing a patent portfolio is often seen as challenging for early-stage companies in view of time and financial constraints, the rewards of strategically and systematically building a portfolio are substantial. Following the steps outlined above can be critical to success in this area.

³ Indeed, investors often take into account the number of applications that remain open or in ongoing prosecution in performing corporate and portfolio valuations.

⁴ See, e.g., <u>https://www.wipo.int/pct/en/pct_contracting_states.html</u>.

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If you have any questions about the issues addressed in this memorandum, or if you would like a copy of any of the materials mentioned in it, please do not hesitate to reach out to:

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