ZYL LAW FIRM

U.S. IP Solutions

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

U.S. Patent Application and Intellectual Property Strategy White Paper

Preface

In today's increasingly competitive global landscape, intellectual property (IP) has become a cornerstone of corporate competitiveness. As the world's largest single consumer market and hub of technological innovation, the United States holds a pivotal position in the global IP system. For enterprises aiming to expand internationally, understanding and effectively leveraging the U.S. patent system is not only a prerequisite for market entry but also a strategic foundation for building global competitive advantages, protecting innovative achievements, and mitigating potential legal risks.

This white paper aims to provide a comprehensive, professional, and practical guide for the legal, IP management, and R&D teams of international enterprises. From the perspective of U.S. patent law experts, we systematically outline the entire process, from strategic considerations before filing a patent to post-grant maintenance and addressing challenges. The report delves into the core legal requirements of U.S. patents, application pathways, examination processes, and highlights key differences in U.S. patent practice compared to other major jurisdictions, such as the "grace period" rule and the "duty of disclosure." Additionally, it offers practical advice on costs, timelines, and selecting qualified U.S. legal counsel.

Our goal is to equip your team with not only an understanding of the rules ("knowing the what") but also the rationale and strategic value behind them ("knowing the why"). This will enable you to formulate a forward-looking and effective U.S. IP strategy, safeguarding your enterprise's global journey.

Part I: Strategic Value of U.S. Patents and Global Positioning

1.1. The Central Role of the U.S. Market and Patent Barriers

The importance of the U.S. market for any enterprise pursuing globalization is undeniable. As one of the world's largest economies and a hub for innovation and

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

investment, the U.S. contributes over $8 trillion annually through IP-intensive industries, underscoring the central role of IP in its economy [1]. Consequently, U.S. patents are widely regarded as the "gold standard" in the global IP system, with their temporary market exclusivity serving as a fundamental incentive for innovation and investment attraction [1].

For enterprises seeking global expansion, obtaining a U.S. patent is far more than securing a legal right—it is a strategic investment critical to survival and growth. A U.S. patent is both a "sword" for proactively capturing market share and a "shield" for defending against patent infringement lawsuits, particularly from U.S.-based competitors. A robust U.S. patent portfolio significantly enhances an enterprise's bargaining power in commercial negotiations, joint ventures, and attracting U.S. venture capital [3].

Data clearly illustrates the global focus on the U.S. market. In 2023, foreign inventors accounted for a significant portion of U.S. patent grants, reflecting intense competition to protect innovations in this critical market [2]. This trend is particularly pronounced in high-growth technical fields such as digital data processing (G06F), digital information transmission (H04L), and wireless communication networks (H04W), which are core to many global technology enterprises [2].

These statistics send a clear message: the U.S. is the primary battlefield for global technological competition. Competitors from the U.S., Europe, and Asia are actively building patent barriers in the U.S. market. Opting out of this "patent race" risks ceding the world's most lucrative market to competitors, placing an enterprise in a passive and defensive position globally.

1.2. Extraterritorial Reach of U.S. Patents and Global Supply Chain Impact

A unique and powerful aspect of U.S. patent law is its potential "extraterritorial reach," primarily embodied in 35 U.S.C. § 271(f) [5]. This provision stipulates that even if an infringing product is entirely manufactured, assembled, and sold outside the U.S., infringement may occur if "all or a substantial portion" of its components are supplied from the U.S., or if a component is "especially made or adapted for use in the patented invention" with the intent for combination abroad.

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

The Federal Circuit's ruling in *AT&T v. Microsoft* is a landmark case illustrating the potency of this provision. In this case, Microsoft exported master versions of its Windows software from the U.S., which were then copied and installed on computers assembled abroad. AT&T held a U.S. patent covering a speech codec and claimed that the Windows software incorporated this patented technology. The court ruled that Microsoft's actions constituted infringement under § 271(f), and damages were calculated based on the global sales of the computers assembled abroad, not just those sold in the U.S. market [5].

This legal provision and its judicial interpretation provide U.S. patent holders with a powerful, often overlooked strategic tool. It extends the protective scope of U.S. patents beyond U.S. borders, reaching into global supply chains. A strategically crafted U.S. patent can enable an enterprise to disrupt a competitor's global production and sales by targeting a weak link in their supply chain—such as a key U.S.-based component supplier.

The elegance of this strategy lies in its efficiency and leverage. Modern high-tech products rely on complex global supply chains, with critical components like high-performance chips, specialty chemicals, or proprietary materials often supplied by a few global players, some of which are based in the U.S. Through thorough competitive intelligence analysis, an enterprise can identify a competitor's reliance on a U.S. supplier. By securing a U.S. patent covering a final product incorporating that critical component, the enterprise gains a fulcrum to disrupt the competitor's global operations.

Instead of pursuing costly patent litigation in multiple countries, a single infringement lawsuit in a U.S. court against the U.S. component supplier, coupled with an injunction to halt exports, can paralyze the competitor's global production line. This transforms a U.S. patent from a mere domestic market entry tool into a precise, far-reaching instrument for controlling global supply chains. Legal teams must incorporate supply chain analysis into their patent strategies to fully exploit the deep strategic value of U.S. patents.

Part II: Subject Matter and Types of U.S. Patent Protection

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

The U.S. patent system, administered by the United States Patent and Trademark Office (USPTO), offers three distinct types of patents: utility patents, design patents, and plant patents. Each protects different subject matter, has unique terms, and entails specific maintenance requirements. Understanding these differences is critical for formulating a comprehensive IP protection strategy.

2.1. Utility Patents

Utility patents are the most common and significant type of U.S. patent, accounting for over 90% of all granted patents [6].

- **Scope**: Utility patents protect how an invention "works or is made," i.e., its functional aspects. The statutory subject matter includes four categories: processes, machines, articles of manufacture, and compositions of matter, as well as new and useful improvements thereof [7]. Examples include a new pharmaceutical process, an innovative mechanical device, a novel composite material, or a software algorithm implementation.

- **Term**: The protection term is 20 years from the earliest effective filing date [7].

- **Maintenance Requirements**: To maintain validity, patent holders must pay maintenance fees at 3.5, 7.5, and 11.5 years post-grant. Failure to pay results in patent lapse [7].

2.2. Design Patents

Unlike utility patents, which focus on function, design patents protect a product's aesthetic features.

- **Scope**: Design patents cover new, original, and ornamental designs applied to articles of manufacture. This includes a product's unique shape (e.g., the iconic Coca-Cola bottle contour), surface patterns, or a combination thereof [7]. Protection extends to digital realms, such as the visual layout and design elements of graphical user interfaces (GUIs) for software applications or websites

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

[8].

- **Term**: The protection term is 15 years from the date of grant [7].
- **Maintenance Requirements**: Design patents require no maintenance fees, offering a significant cost advantage [7].

2.3. Plant Patents

Plant patents are a specialized category protecting innovations in plant breeding.

- **Scope**: Plant patents cover new and distinct plant varieties invented or discovered and asexually reproduced (e.g., through grafting, cuttings, or layering, not seeds). The plant must be unique, not naturally occurring in the wild, and not tuber-propagated (e.g., potatoes). A notable example is the “Honeycrisp” apple tree, which was protected by a plant patent [7].
- **Term**: The protection term is 20 years from the filing date [7].
- **Maintenance Requirements**: Like design patents, plant patents require no maintenance fees [7].

2.4. Comprehensive Protection Strategy: Synergistic Application

For many products, relying on a single type of patent may not suffice to create a robust IP barrier. A stronger, more comprehensive strategy involves synergistically applying different patent types to form a multi-layered protection network.

For example, a newly developed consumer electronic product, such as a smartphone or kitchen appliance, can benefit from both utility and design patents. A utility patent can protect its innovative internal circuitry, unique software algorithms, or efficient mechanical structures, while a design patent can safeguard its consumer-attracting streamlined body, unique button layout, or novel screen interface design.

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

This combined strategy creates dual barriers to competitor imitation. A competitor might develop a functionally non-infringing alternative to avoid the utility patent, but if their product's appearance is substantially similar to the design-patented product, it may still infringe. This is particularly critical in consumer goods industries, where a product's "look and feel" and user experience often determine market success. By creating a "patent thicket," enterprises significantly increase competitors' design-around costs and legal risks, thereby strengthening their market position.

For international enterprises, particularly in consumer electronics, appliances, and automotive sectors, design patents should not be overlooked. Given their relatively low application and maintenance costs and exemption from maintenance fees, design patents are a highly cost-effective long-term strategic asset. In industries with short product lifecycles but enduring brand-defining designs, design patents offer a high return on investment. They can combat functionally distinct but visually similar "knock-off" products and play a key role in anti-unfair competition and brand image protection. Legal teams should treat design patents as equally critical as utility patents in their overall IP strategy.

Table 1: Comparison of U.S. Patent Types

Feature	Utility Patent	Design Patent	Plant Patent
Subject Matter	Functional aspects of an invention (e.g., processes, machines, articles, compositions) [7]	Ornamental, non-functional designs (e.g., shapes, patterns, GUIs) [7]	New, distinct, asexually reproduced plant varieties [7]
Protection Term	20 years from earliest effective filing date [7]	15 years from grant date [7]	20 years from filing date [7]
Maintenance Fees	Yes, at 3.5, 7.5, and 11.5 years [7]	No	No

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Typical Applications	Core technologies, operational principles, software algorithms, chemical formulations	Product shapes, packaging designs, user interfaces, brand visual elements	New fruit trees, flowers, or commercially valuable plant varieties

Part III: Core Legal Requirements for U.S. Patent Grants

To successfully obtain a U.S. patent, an invention must meet the stringent substantive requirements outlined in Title 35 of the U.S. Code. These requirements form the basis for USPTO examiners' assessments of whether an invention warrants exclusive rights. They include patentable subject matter (§ 101), novelty (§ 102), non-obviousness (§ 103), and adequate disclosure and definiteness (§ 112).

3.1. Patentable Subject Matter (§ 101): Threshold and Judicial Exceptions

Section 101 is the first hurdle, defining what types of innovations are eligible for patent protection.

- **Statutory Categories**: The law specifies that only inventions or discoveries falling within one of four categories—processes, machines, manufactures, or compositions of matter—or new and useful improvements thereof, may be patented [9]. While this scope appears broad, it is not without limitations.

- **Judicial Exceptions**: Over the years, U.S. courts have established three categories of subject matter ineligible for patents: laws of nature, natural phenomena, and abstract ideas [10]. These are considered fundamental building blocks of human knowledge that should not be monopolized. For instance, Einstein could not patent the equation $E=mc^2$ (a law of nature), nor could a newly discovered mineral or plant be patented (a natural phenomenon).

- **Alice/Mayo Framework**: For inventions involving judicial exceptions, particularly software, business methods, and artificial intelligence (AI), the USPTO and courts apply a two-step test derived from *Alice Corp. v. CLS Bank* and *Mayo v.*

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Prometheus [10]:

- **Step 1**: Does the claim "direct to" one of the judicial exceptions (e.g., an abstract idea)?
- **Step 2**: If so, do the claim elements, individually or in combination, contain an "inventive concept" that transforms the claim into a patent-eligible application of the exception? This concept must be "significantly more" than the exception itself.

For enterprises in software, fintech, AI, and big data analytics, § 101 is a critical hurdle. A technically novel and non-obvious algorithm may be rejected as an "abstract idea" if its claims merely describe mathematical logic without tying it to a specific practical application or demonstrating specific improvements to computer functionality [10].

3.2. Novelty (§ 102): Defining "Prior Art"

Section 102 establishes the "novelty" requirement, mandating that an invention must be new.

- **Core Principle**: The novelty standard is stringent. If every technical feature of a claim is found in a single prior art reference, the claim is "anticipated" and lacks novelty [13]. Prior art can disclose these features expressly or inherently.

- **Prior Art Definition**: Under the America Invents Act (AIA), "prior art" includes any technology publicly disclosed before the invention's effective filing date through patents, printed publications, public use, sales, or other means [15]. This is a global standard, meaning any publication, anywhere, in any language (e.g., a foreign journal article, a webpage, or a YouTube video), disclosed before the effective filing date, can destroy novelty [16].

3.3. Non-Obviousness (§ 103): Legal Standards and Practical Assessments

Non-obviousness is the most complex and challenging aspect of patent examination. It requires that an invention not only be new but also not "obvious" in light of prior art.

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

- **Core Principle**: Even if an invention is novel compared to any single prior art reference, it cannot be patented if the differences from the prior art would have been obvious to a Person Having Ordinary Skill in the Art (PHOSITA) at the time of the effective filing date [17].

- **Graham Factors**: The Supreme Court in *Graham v. John Deere* established a four-step framework for assessing non-obviousness, which remains foundational [18]:

    1. Determine the scope and content of the prior art.
    2. Identify the differences between the prior art and the claimed invention.
    3. Assess the level of ordinary skill in the relevant technical field.
    4. Evaluate objective "secondary considerations," such as commercial success, long-felt but unresolved needs, failures of others, and unexpected technical effects.

- **KSR's Flexible Approach**: In *KSR v. Teleflex*, the Supreme Court rejected the rigid "Teaching-Suggestion-Motivation" (TSM) test, which required explicit teachings or motivations in prior art to combine references. Instead, it adopted a more flexible, common-sense approach [13]. Examiners may rely on the PHOSITA's general knowledge, known technical principles, or market demands to argue that combining prior art references was obvious. For example, applying a known technique to improve a similar device in a predictable way may be deemed obvious.

This shift raises the bar for patent applicants. To overcome a non-obviousness rejection, arguing that the prior art lacks explicit motivation to combine is insufficient. A stronger strategy focuses on the "secondary considerations" in the Graham framework, using experimental data or market evidence to demonstrate that the invention produces unexpected, synergistic technical effects not anticipated by the prior art.

3.4. Adequate Disclosure and Definiteness (§ 112): Specification and Claims Requirements

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Section 112 governs the standards for the patent specification and claims, ensuring that the patentee provides clear and complete technical disclosure in exchange for exclusive rights.

- **Key Requirements** [17]:
    - **Written Description**: The specification must sufficiently describe the invention to demonstrate that the inventor "possessed" the claimed invention at the time of filing.
    - **Enablement**: The disclosure must enable a PHOSITA to make and use the invention without undue experimentation.
    - **Best Mode**: The inventor must disclose the best mode known at the time of filing for practicing the invention.
    - **Definiteness**: The claims must "particularly point out and distinctly claim" the invention, with clear boundaries so the public can understand what constitutes infringement.

For software and AI patent applications, there is a strategic tension between § 101, § 103, and § 112 requirements. To satisfy § 101 and avoid being deemed an abstract idea, applicants often include specific application contexts or hardware interactions in claims [10]. However, these restrictions may weaken claims under § 103, as examiners may view applying a known algorithm to a well-known problem on a general-purpose computer as obvious [19]. Simultaneously, to meet § 112's enablement requirement, the specification may need to disclose detailed algorithm logic, model architectures, or training datasets, which could conflict with protecting core trade secrets. Balancing patent grant certainty, sufficient claim scope, and trade secret protection is a core challenge in drafting high-quality U.S. software/AI patents, requiring exceptional expertise and strategic insight from U.S. patent attorneys.

Part IV: Patent Application Pathways and International Strategies

To secure U.S. patent protection, applicants can choose different procedural pathways. These choices impact costs, timelines, and align with commercial goals, technical maturity, and global strategies.

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

4.1. Strategic Use of Provisional Patent Applications

The U.S. patent system offers a unique tool—the provisional patent application—providing a flexible, low-cost way to initiate patent protection.

- **Function and Nature**: A provisional application is an informal, lower-cost filing that secures a priority date [20]. It is never substantively examined by the USPTO and cannot directly issue as a patent. It serves as a 12-month "placeholder" [20].

- **Strategic Advantages**:

    - **Securing a Priority Date**: Under the U.S.'s "first-inventor-to-file" system, filing even one day earlier can determine patent ownership. A provisional application locks in an early priority date.
    - **Cost Deferral**: With lower filing and attorney fees than non-provisional applications, it allows enterprises to defer significant patent costs for up to a year, enhancing financial flexibility.
    - **"Patent Pending" Status**: Filing a provisional application allows the use of "Patent Pending" on products or marketing materials, aiding market promotion, deterring imitators, and attracting investors.
    - **12-Month Window**: The 12-month period allows continued R&D, refinement of the invention, market testing, commercial feasibility assessment, or fundraising without losing priority protection.
    - **Confidentiality**: Unless a non-provisional application claiming its priority is filed and published, the provisional application remains confidential, providing early-stage secrecy [23].
- **Key Considerations**: The strategic value of a provisional application depends on follow-through. Within 12 months, a non-provisional application must be filed, explicitly claiming the provisional's priority. Missing this deadline permanently forfeits the priority date. Additionally, the provisional's content must provide adequate § 112 support (written description and enablement) for the invention claimed in the non-provisional application, or the priority date may not be recognized.

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

4.2. Non-Provisional Patent Application: The Direct Path

The non-provisional application, often called a utility patent application, is the standard route to obtaining a U.S. patent grant.

- **Function and Nature**: This is a formal legal document submitted to the USPTO, entering the substantive examination queue. Only after passing examination under §§ 101, 102, 103, and 112 can it be granted as an enforceable U.S. patent [22].

- **Strategic Choice**: Bypassing a provisional application and filing directly is the fastest path to examination and grant. This suits inventions with fully matured technical solutions, clear commercial prospects, and a need for expedited legal protection for market expansion or enforcement [22].

4.3. International Applications Entering the U.S.: Paris Convention vs. PCT National Phase

For international enterprises that have filed a first patent application in their home country and seek U.S. protection, two primary pathways exist: the Paris Convention route and the Patent Cooperation Treaty (PCT) route.

- **Paris Convention Route**: Under the Paris Convention's priority principle, applicants have 12 months from their first filing (priority date) to file a U.S. patent application claiming that priority. This requires simultaneous filings, translations, and fee payments in the U.S., Europe, Japan, and other target countries within the 12-month period [25].

- **PCT Route**: Within 12 months of the first filing, applicants can file a unified "international application" (PCT application) instead of direct national filings. This does not result in an "international patent" but reserves the right to seek protection in over 150 PCT member states, including the U.S. The deadline to enter the U.S. national phase is extended to 30 months from the priority date

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

[27].

The choice between these pathways involves deep strategic considerations. On the surface, the Paris Convention route may seem more direct and cost-effective for a few target countries. However, the PCT route's 18-month extension (from 12 to 30 months) makes it a powerful tool for strategic deferral and due diligence.

First, the 18-month deferral significantly reduces short-term financial pressure. The Paris Convention route requires major investment decisions across all target countries at the 12-month mark, while the PCT route delays major costs (national phase filing fees, translations, and attorney fees) until 30 months, providing valuable cash flow relief and extended decision-making time.

Second, and more critically, during the PCT international phase, applicants receive an *International Search Report* (ISR) and *Written Opinion* (WO) from an International Searching Authority (ISA). While not legally binding, these provide an early, neutral, high-quality assessment of the invention's patentability (novelty, inventive step, etc.) [28].

The strategic value of this report is immense. A negative ISR/WO citing destructive prior art allows enterprises to abandon the application before incurring significant national phase costs, minimizing losses. Conversely, a positive report boosts confidence in further investment. Thus, the PCT route is not merely a procedural mechanism but a comprehensive tool for cost deferral, competitive intelligence, and legal risk assessment. For most enterprises seeking international protection, even with few target countries, the PCT route is typically the more prudent and strategically advantageous choice.

Table 2: Comparison of Provisional and Non-Provisional Patent Application Strategies

Factor	Provisional Application	Non-Provisional Application

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Purpose	Secure priority date as a 12-month placeholder [20]	Initiate substantive examination, aiming for patent grant [22]
Cost	Lower (filing and attorney fees) [20]	Higher (complex fees for filing, examination, and grant) [22]
Timeline	Must convert to non-provisional within 12 months or lapse [20]	Directly enters examination queue, fastest path to grant
Examination	No substantive examination [22]	Full USPTO substantive examination [23]
Confidentiality	Not published unless priority is claimed [23]	Typically published 18 months after filing
Best Use Case	Early-stage invention needing further R&D, market testing, or funding [22]	Fully matured invention with clear commercial goals

Table 3: Comparison of Paris Convention and PCT Routes for U.S. Entry

Factor	Paris Convention Route	PCT Route
Initial Action Deadline	Within 12 months of priority date [25]	File PCT application within 12 months of priority date [25]
Major Cost Deadline	12 months (simultaneous filings in all target countries) [26]	30 months (national phase entry) [25]
Number of Target Countries	Suitable for few countries (e.g., 1–2) [29]	Ideal for multiple countries or retaining multi-country options [29]
Early Patentability Feedback	None	Yes (via ISR and WO) [28]
Strategic Advantage	Direct process, potentially faster national examination	Deferred costs and decisions, enhanced risk assessment, greater strategic flexibility

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Part V: Key Differences in U.S. Patent Practice and Responses

For legal teams accustomed to other patent systems, understanding and adapting to unique U.S. patent rules is critical. These differences are not merely procedural but involve core legal obligations and strategic thinking. The “grace period” and “duty of candor and disclosure” are two areas most prone to misunderstanding and severe consequences.

5.1. Grace Period: Opportunities and Pitfalls of the U.S. One-Year Rule

The “grace period” refers to the time after an invention’s public disclosure during which a patent application can still be filed. The U.S. differs significantly from many other jurisdictions.

- **U.S. Rule**: The U.S. offers a generous one-year grace period under 35 U.S.C. § 102(b)(1)(A). Disclosures by the inventor or someone who obtained the information directly or indirectly from the inventor (e.g., product displays at trade shows, academic publications, or commercial sales) within one year before the effective filing date do not count as prior art to negate novelty [30].

- **Other Jurisdictions’ Rules**: In contrast, many major jurisdictions, such as Europe and China, have stricter rules. Europe enforces “absolute novelty,” where almost any pre-filing disclosure destroys novelty [31]. China offers a six-month grace period limited to specific scenarios (e.g., government-approved exhibitions), typically excluding the inventor’s commercial sales or standard academic publications [31]. Some jurisdictions, like China, provide no grace period for design patents [34].

These differences create a significant trap for enterprises planning global patent portfolios. R&D or marketing teams may assume, based on the U.S. grace period, that they can launch a product or publish a paper and later file in the U.S. While permissible under U.S. law, such actions can be catastrophic for global protection.

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Relying on the U.S. grace period risks sacrificing patent rights in other key jurisdictions. For enterprises with global ambitions, the only safe, robust rule is: **"File first, disclose later."** Before any disclosure (sales, exhibitions, publications, or press releases), at least one patent application (e.g., a U.S. provisional application) must be filed. This is a non-negotiable principle that legal teams must enforce across all relevant departments, particularly R&D and marketing.

5.2. Duty of Candor and Information Disclosure Statement (IDS): Unique U.S. Requirements

Another distinctive and critical U.S. patent law requirement is the "duty of candor and good faith" and the associated Information Disclosure Statement (IDS) system, which has no direct equivalent in many other patent systems.

- **The Duty**: Under 37 C.F.R. § 1.56, every individual involved in preparing or prosecuting a patent application owes a duty of candor and good faith to the USPTO. This requires proactively disclosing all known information material to patentability [35].

- **Who Has the Duty**: The obligation applies broadly to inventors, U.S. patent attorneys or agents preparing or prosecuting the application, and others substantively involved (e.g., in-house IP managers) [35].

- **How to Comply**: The primary method is submitting an IDS listing all known prior art that may affect patentability, such as patents, published applications, academic papers, or product manuals [36].

- **Special Requirements for International Applicants**: This duty is particularly critical for international enterprises. Applicants must disclose prior art cited during the examination of foreign counterpart applications (e.g., at the European Patent Office or Japan Patent Office) to the USPTO [35].

- **Consequences of Non-Compliance**: Violating the duty of candor can have severe consequences. If the USPTO or a court finds that an applicant or their agent intentionally withheld material information with intent to deceive, it may

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

constitute “inequitable conduct.” If proven, the penalty is devastating: all claims of the involved patent are deemed permanently unenforceable, rendering the patent worthless, even if technically valid [35].

This requirement mandates that legal teams establish a rigorous, cross-jurisdictional compliance process. This process must be mandatory, not optional. Specifically, when a foreign patent office (e.g., EPO or JPO) issues an examination report citing new prior art, the enterprise or its foreign agent “knows” this information, triggering the U.S. disclosure obligation.

Enterprises must implement a standard operating procedure (SOP) to ensure that foreign examination reports and cited prior art are promptly and fully transmitted to the U.S. attorney handling the application. The U.S. attorney must then prepare and file an IDS per USPTO rules, typically within three months of receiving the foreign report to avoid additional fees [36]. Establishing and strictly adhering to this information synchronization and reporting workflow is critical to managing U.S. patent application risks and ensuring the integrity of U.S. patent assets.

Table 4: Comparison of Grace Period Provisions in the U.S. and Other Major Jurisdictions

Feature	United States	Other Jurisdictions (e.g., Europe, China)
Grace Period Duration	1 year [31]	Shorter (e.g., 6 months) or none [31]
Covered Disclosure Types	Includes inventor’s sales, publications, and more [31]	Typically absolute novelty or limited exceptions [31]
Applicability to Design Patents	Yes (1 year) [34]	Often none or stricter rules [34]

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Strategic Implication	Offers flexibility but poses global risks	Strict rules, typically requiring "file first, disclose later"
Global Strategy Recommendation	Avoid relying on U.S. grace period. Adopt absolute novelty standard (file before any disclosure) for global strategies.	

Part VI: USPTO Examination Process and Post-Grant Procedures

Filing a patent application is just the beginning. The application then enters the USPTO's substantive examination phase and may face post-grant legal challenges and maintenance requirements.

6.1. Interpreting and Responding to Office Actions

After assignment to a patent examiner, the invention undergoes a comprehensive patentability assessment. The examiner communicates their findings in an "Office Action."

- **Examination Process**: The examiner searches prior art and evaluates the claims under §§ 101, 102, 103, and 112. If issues are found, an Office Action details the reasons for rejection or objection [17].
    - **Rejection**: Based on §§ 101, 102, 103, etc., indicating that the claims lack patentability.
    - **Objection**: Typically based on § 112 or procedural issues, indicating deficiencies in the application's format or drafting.
- **Types of Office Actions**:
    - **Non-Final Office Action**: The first substantive examination report, allowing applicants ample opportunity to respond by amending claims or submitting legal arguments [17].
    - **Final Office Action**: Issued if the examiner remains unpersuaded after the applicant's response. Claim amendments are restricted, and further

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

examination typically requires an appeal or Request for Continued Examination (RCE) [17].

- **Response Strategies**: Responding to an Office Action is a highly technical and legal task, involving:
    - **Amending Claims**: Adding, removing, or modifying technical features to narrow the claim scope and avoid prior art.
    - **Presenting Arguments**: Contesting the examiner's interpretation of prior art or application of law.
    - **Examiner Interview**: A phone or video meeting with the examiner to clarify misunderstandings, explore concerns, and negotiate acceptable claim scope [17].

6.2. Patent Maintenance Fees

To maintain a patent's enforceability post-grant, maintenance fees are required.

- **Applicability**: Maintenance fees apply only to utility patents and reissue utility patents. Design and plant patents are exempt [7].
- **Payment Schedule**: Fees must be paid at three intervals post-grant:
    - 3.5 years (payment window: 3 to 3.5 years)
    - 7.5 years (payment window: 7 to 7.5 years)
    - 11.5 years (payment window: 11 to 11.5 years)

    A six-month grace period follows each window, but late payments incur surcharges [7].
- **Fee Structure (Effective January 19, 2025)**: For large entities, the fees are $2,150, $4,040, and $8,280, respectively [37].

6.3. Post-Grant Challenge Procedures: IPR, PGR, and Ex Parte Reexamination

The America Invents Act (AIA) introduced three administrative procedures to challenge granted patents' validity at the Patent Trial and Appeal Board (PTAB). Compared to

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

traditional district court litigation, these are faster, less costly, and use a lower evidentiary standard, making them powerful tools for challengers and significant risks for patentees.

- **Inter Partes Review (IPR)**:
    - **Filing Window**: Available after 9 months from patent grant or after a PGR proceeding ends (whichever is later) [22].
    - **Grounds**: Limited to novelty (§ 102) and non-obviousness (§ 103) challenges based on patents and printed publications [22].
    - **Institution Standard**: The petitioner must show a "reasonable likelihood" of prevailing on at least one claim for PTAB to institute the IPR [22].
    - **Procedure**: An adversarial quasi-judicial process where both parties submit evidence, conduct limited discovery, and participate in oral hearings.
- **Post-Grant Review (PGR)**:
    - **Filing Window**: Within 9 months of patent grant [22].
    - **Grounds**: Broad, encompassing any patentability issue, including § 101 (subject matter), § 112 (written description, enablement, definiteness), and §§ 102/103 [22].
    - **Institution Standard**: Higher than IPR, requiring a "more likely than not" chance of invalidating at least one claim [22].
- **Ex Parte Reexamination (EPR)**:
    - **Filing Window**: Any time during the patent's enforceable term [22].
    - **Procedure**: Any third party can request, but once approved, the requester has no further involvement. The process occurs solely between the patentee and USPTO examiners [22].
    - **Key Advantage**: No estoppel. If the reexamination fails to invalidate the patent, the challenger can raise the same or other invalidity grounds in future litigation, making it a low-risk probing tool [22].

Table 5: Comparison of U.S. Post-Grant Challenge Mechanisms

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Feature	Inter Partes Review (IPR)	Post-Grant Review (PGR)	Ex Parte Reexamination (EPR)
Filing Window	After 9 months from grant	Within 9 months of grant	Any time during patent term
Grounds	§§ 102, 103 based on patents/publications	Any patentability issue (incl. §§ 101, 112)	§§ 102, 103 based on patents/publications
Institution Standard	Reasonable likelihood	More likely than not	Substantial new question
Adjudicating Body	PTAB	PTAB	USPTO Central Reexamination Unit (CRU)
Challenger Involvement	Full participation	Full participation	Request only, no further involvement
Estoppel Effect	Strong (bars re-raising grounds in later proceedings)	Strong (same as IPR)	None
Strategic Use	Common tool for pre-litigation or litigation attacks	Early, comprehensive patent challenges, especially for software/biotech (§§ 101/112)	Low-risk probing or fallback after IPR/PGR failure

Part VII: Practical Considerations: Costs, Timelines, and Selecting U.S. Legal Counsel

Formulating and executing a U.S. patent strategy requires a clear, realistic understanding of costs, timelines, and the selection of qualified legal counsel.

7.1. Cost and Timeline Analysis

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Business units often underestimate the resources required to obtain and maintain a U.S. patent. Legal teams must base their planning on reliable data for budgeting and timeline management.

- **Cost Analysis**:
    - **Application Preparation and Filing**: Hiring a U.S. patent attorney to draft a high-quality utility patent application typically costs $8,000–$15,000. Simple mechanical inventions may range from $8,000–$10,000, while complex software or medical device inventions often exceed $12,000–$16,000 [41].
    - **Prosecution**: Most applications receive at least one Office Action. Responding to each costs $3,500–$4,500 in attorney fees. One to three rounds of Office Actions are common [41].
    - **Grant and Maintenance**: A grant fee is required upon approval. Maintenance fees for utility patents, totaling over $14,000 for large entities, are due at 3.5, 7.5, and 11.5 years [37].
    - **Total Budget**: From filing to grant, a realistic budget for a utility patent is $15,000–$25,000 or higher. Including maintenance fees, the lifecycle cost easily exceeds $40,000 [41].
- **Timeline Analysis**: USPTO data indicates lengthy examination periods [39].
    - **First Office Action Pendency**: Approximately 20–23 months from filing to the first Office Action.
    - **Total Pendency**: The “traditional” total pendency is about 26.2 months, excluding RCE cases. Including RCE, it averages 30.2 months. For complex technologies requiring RCE, enterprises should plan for 2.5–3 years from filing to grant or abandonment.

Legal teams should use this data to set realistic internal expectations, aligning commercial plans (e.g., product launches, technical iterations) with the lengthy examination timeline and treating patent costs as a sustained operational expense in annual and long-term budgets.

Table 6: Estimated Costs and Timeline for U.S. Utility Patent (Large Entity)

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Stage	Estimated Attorney Fees (USD)	USPTO Fees (USD, 2025 Rates)	Estimated Timeline
Provisional Application (Optional)	$2,500–$6,000+ [41]	~$150	T0
Non-Provisional Filing	$8,000–$16,000+ [41]	~$800–$1,000	T0 or T0+12 months
Prosecution (Per Response)	$3,500–$4,500	~$0	T0+~22 months (first)
Grant	~$500–$1,000	$1,290 [42]	T0+~30 months
Maintenance Fee (3.5 years)	~$200–$500	$2,150 [37]	3.5 years post-grant
Maintenance Fee (7.5 years)	~$200–$500	$4,040 [37]	7.5 years post-grant
Maintenance Fee (11.5 years)	~$200–$500	$8,280 [37]	11.5 years post-grant
Lifecycle Total (Estimate)	~$15,000–$30,000+	~$16,000+	~20 years

Table 7: Preview of USPTO Fee Adjustments (Effective January 19, 2025)

Fee Type	Current Fee (USD, Large Entity)	New Fee (USD, Large Entity)	Change (%)
Utility Patent Filing (Base)	$320	$350	+9.4%
Design Patent Filing (Base)	$220	$300	+36% [38]
Design Patent Search Fee	$160	$300	+88% [38]

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

Design Patent Issue Fee	$740	$1,300	+76% [38]
IPR Request (≤20 Claims)	$19,000	$23,750	+25% [37]
PGR Request (≤20 Claims)	$20,000	$25,000	+25% [37]
Maintenance Fee (3.5 years)	$2,000	$2,150	+7.5% [37]
Maintenance Fee (7.5 years)	$3,760	$4,040	+7.5% [37]
Maintenance Fee (11.5 years)	$7,700	$8,280	+7.5% [37]

Note: Fees are for large entities and are a partial sample. Refer to USPTO official publications for exact fees. This table provides forward-looking data for 2024–2025 budget optimization.

7.2. Core Criteria for Selecting U.S. Patent Counsel

Choosing the right U.S. legal counsel is a decisive factor in the success of a patent strategy. For international enterprises, the selection process requires heightened diligence and criteria beyond the norm.

- **Mandatory Checks**:
    - **USPTO Registration**: Confirm that the attorney or agent is registered with the USPTO, qualified to handle patent matters, and in good standing with no disciplinary history. Foreign attorneys cannot directly represent clients before the USPTO [6].
    - **Technical Background**: The attorney must have an educational background (e.g., bachelor's or higher degree in engineering or relevant sciences) matching the invention's technical field to ensure accurate comprehension [6].

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

- **Due Diligence Questions for International Applicants**:
    - **Experience with International Clients**: "What experience does your firm have representing foreign companies? How do you manage cross-time zone, cross-cultural, and cross-legal system communication? Can you provide references from other international clients?" Proven success and client trust are key [43].
    - **IDS and International Application Management**: "What standardized processes does your firm have to ensure timely and accurate compliance with U.S. IDS obligations for examination reports received from foreign patent offices like the EPO or JPO?" This reveals the firm's compliance rigor and international case management capabilities.
    - **Litigation and Post-Grant Experience**: "What is your firm's experience with PTAB (IPR/PGR) and district court patent litigation? How do you assist foreign clients, especially those new to U.S. litigation, in navigating the complex U.S. discovery process?" Experience with U.S. litigation complexities is critical [43].
    - **Service Team and Workflow**: "Who will handle my case? Will junior attorneys or paralegals be involved, and what is their experience level? How frequently and through what means do you communicate with clients?" Understanding the team structure and communication style ensures smooth collaboration [43].
    - **Fee Structure**: "Do you use flat fees or hourly rates for application drafting and Office Action responses? What are your rates?" Be cautious of unusually low quotes, which may indicate inexperience or compromised quality [43].

Conclusion and Recommendations

This white paper systematically addresses the facets of U.S. patent applications and IP strategies, providing a clear action framework for international enterprises. Based on the analysis, we offer the following core conclusions and strategic recommendations:

1. **Strategic Positioning**: Treat U.S. patents as a core global competitive asset. U.S. patents are not merely market entry tools but strategic assets for influencing

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

global supply chains, building deterrence, and enhancing global competitiveness. Align U.S. patent strategies with market, R&D, and supply chain objectives at the corporate strategy level.

2. **Protection Strategy**: Build a multi-layered, efficient patent portfolio. Go beyond utility patents by leveraging design patents for synergistic protection. Given their cost-effectiveness (no maintenance fees), design patents are a long-term, high-value tool for protecting brand image and combating visual knock-offs, especially in consumer goods and electronics.

3. **Application Pathway**: Prioritize the PCT route for risk and cost management. For most inventions seeking international protection, the PCT route is more robust than the Paris Convention. Its 30-month decision window and ISR/WO provide critical cost deferral and risk assessment tools, enabling informed decisions before incurring significant national phase expenses.

4. **Compliance Baseline**: Strictly adhere to “file first, disclose later” and IDS obligations. These are non-negotiable red lines. Establish rigorous internal controls to ensure no disclosures occur before filing an application to preserve global patentability. Implement mandatory, cross-jurisdictional processes to promptly disclose foreign-cited prior art to the USPTO via IDS, avoiding the catastrophic consequences of inequitable conduct.

5. **Budget and Management**: Plan realistically for full lifecycle costs and timelines. Recognize that obtaining and maintaining a U.S. patent is a long-term, high-investment endeavor. Legal teams should budget for the full lifecycle (application, prosecution, and 20-year maintenance fees) and anticipate 2.5–3-year examination timelines to align internal expectations and resource allocation.

6. **Counsel Selection**: Conduct thorough due diligence beyond technical expertise. When selecting U.S. patent counsel, international enterprises must evaluate experience with foreign clients, IDS compliance processes, and capabilities in handling U.S. litigation and post-grant challenges. A top-tier U.S. counsel is not just a technical and legal expert but a strategic partner navigating complex legal

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

systems and compliance risks.

In conclusion, mastering the U.S. patent system is a complex endeavor requiring deep legal understanding, strategic foresight, rigorous compliance, and pragmatic resource planning. We hope this white paper serves as a reliable guide, empowering your enterprise to thrive in the global IP arena.

Appendix A: Glossary of Key Terms

- **AIA (America Invents Act)**: A 2011 U.S. patent law reform transitioning to a "first-inventor-to-file" system.
- **Estoppel**: A legal principle barring challengers in IPR or PGR from re-raising grounds in later proceedings that were or could have been raised at PTAB.
- **IDS (Information Disclosure Statement)**: A document submitted to the USPTO to fulfill the duty of candor, disclosing known information material to patentability.
- **IPR (Inter Partes Review)**: An administrative PTAB procedure challenging patent validity based on §§ 102 and 103 using patents and publications.
- **Office Action**: A USPTO examiner's written communication detailing rejections or objections to a patent application.
- **PGR (Post-Grant Review)**: A PTAB procedure challenging newly granted patents (within 9 months) on any patentability ground.
- **PHOSITA (Person Having Ordinary Skill in the Art)**: A hypothetical person with average knowledge and skill in the relevant technical field, used in non-obviousness assessments.
- **Prior Art**: All technical information publicly disclosed before the effective filing date, used to assess novelty and non-obviousness.
- **Provisional Application**: An informal, low-cost filing securing a priority date for 12 months, not examined or granted.
- **RCE (Request for Continued Examination)**: A request to reopen examination after a final Office Action.
- **USPTO (United States Patent and Trademark Office)**: The federal agency responsible for granting U.S. patents and registering trademarks.

References

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

1. *Quality U.S. patents drive our economy and solve world problems* - USPTO, accessed June 22, 2025, https://www.uspto.gov/blog/quality-us-patents-drive-our-economy-and-solve-world-problems
2. *USPTO 2023 Patent Statistics: Unveiling Innovation Trends* - TT Consultants, accessed June 22, 2025, https://ttconsultants.com/the-state-of-u-s-innovation-uspto-patent-statistics-report-2023/
3. *National Science Board - News - Global Competitors Outpace U.S. in Patents* - NSF, accessed June 22, 2025, https://www.nsf.gov/nsb/news/news_summ.jsp?cntn_id=309184
4. *Exploring Sections 101, 102, & 103 of U.S. Patent Law* - TT Consultants, accessed June 22, 2025, https://ttconsultants.com/navigating-the-nuances-a-comprehensive-exploration-of-sections-101-102-and-103-of-u-s-patent-law/
5. *Drafting for Multiple Jurisdictions Miniseries: Part 1 - Grace Period ...*, accessed June 22, 2025, https://www.finnegan.com/en/insights/blogs/at-the-ptab-blog/unitary-patent-series-part-1-grace-period-provisions.html
6. *Finding a registered patent practitioner* - USPTO, accessed June 22, 2025, https://www.uspto.gov/learning-and-resources/patent-and-trademark-practitioners/finding-patent-practitioner
7. *Patents Dashboard* - USPTO, accessed June 22, 2025, https://www.uspto.gov/dashboard/patents/
8. *Chinese Companies Seek Guidance on U.S. Intellectual Property Law*, accessed June 22, 2025, https://ccbjournal.com/articles/chinese-companies-seek-guidance-on-u-s-intellectual-property-law
9. *Summary of a few particular aspects of China patent filing procedures*, accessed June 22, 2025, https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/summary-few-particular-aspects-china-patent-filing-procedures-2021-07-20_en
10. *3 Types of Patents: How Utility, Design, and Plant Patents Work (2024)* - Shopify, accessed June 22, 2025, https://www.shopify.com/blog/types-of-patents
11. *PCT or Paris Convention?* - IP-Coster, accessed June 22, 2025, https://www.ip-coster.com/academy/details/pct_or_paris_convention
12. *Understanding Provisional vs. Non-Provisional Patents* - Innovent Law, accessed June 22, 2025, https://www.innoventlaw.com/provisional-and-non-provisional-patents/

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

13. *Updated Guidance for Making a Proper Determination of Obviousness* - Federal Register, accessed June 22, 2025, https://www.federalregister.gov/documents/2024/02/27/2024-03967/updated-guidance-for-making-a-proper-determination-of-obviousness
14. *Provisional Vs Non Provisional Patent* - Goldstein Patent Law, accessed June 22, 2025, https://www.goldsteinpatentlaw.com/provisional-vs-non-provisional-patent/
15. *609-Information Disclosure Statement* - USPTO, accessed June 22, 2025, https://www.uspto.gov/web/offices/pac/mpep/s609.html
16. *Title 35 of the United States Code* - Wikipedia, accessed June 22, 2025, https://en.wikipedia.org/wiki/Title_35_of_the_United_States_Code
17. *2501-Introduction* - USPTO, accessed June 22, 2025, https://www.uspto.gov/web/offices/pac/mpep/s2501.html
18. *The Effective Use of the PCT System* - WIPO, accessed June 22, 2025, https://www.wipo.int/edocs/mdocs/aspac/en/wipo_pct_bkk_12/wipo_pct_bkk_12_ref_t4c.pdf
19. *Patent Grace Periods for U.S. and Foreign Countries* - Neustel Law Offices, accessed June 22, 2025, https://neustel.com/patentability/patent-grace-periods-u-s-foreign-countries/
20. *PCT – The International Patent System* - WIPO, accessed June 22, 2025, https://www.wipo.int/en/web/pct-system
21. *Responding to Office Actions* - USPTO, accessed June 22, 2025, https://www.uspto.gov/patents/maintain/responding-office-actions
22. *USPTO Post-Grant Proceedings: An Overview* - Fox Rothschild LLP - JDSupra, accessed June 22, 2025, https://www.jdsupra.com/legalnews/uspto-post-grant-proceedings-an-overview-2979256/
23. *What to look for in a good lawyer for an international patent?* - Reddit, accessed June 22, 2025, https://www.reddit.com/r/patentlaw/comments/1k35cqi/what_to_look_for_in_a_good_lawyer_for_an/
24. *Reexamination vs. Other Post-Grant Proceedings* - Patent Lawyer, accessed June 22, 2025, https://patentlawyer.io/reexamination/
25. *Paris Convention and PCT applications Challenges & opportunities for their examination in the national phase* - WIPO, accessed June 22, 2025,

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

https://www.wipo.int/edocs/mdocs/pct/en/wipo_pct_dac_22/wipo_pct_dac_22_topic_3.pdf

26. *Design Registrations and Global Grace Periods* - Scintilla IP, accessed June 22, 2025, https://www.scintilla-ip.com/design-registrations-and-global-grace-periods/
27. *Understanding Provisional Patent Applications: A Strategic Guide for Inventors and Businesses* - ipCG, accessed June 22, 2025, https://www.ipcg.com/understanding-provisional-patent-applications-a-strategic-guide-for-inventors-and-businesses/
28. *Hiring a U.S.-licensed attorney* - USPTO, accessed June 22, 2025, https://www.uspto.gov/trademarks/basics/why-hire-private-trademark-attorney
29. *2104-Requirements of 35 U.S.C. 101* - USPTO, accessed June 22, 2025, https://www.uspto.gov/web/offices/pac/mpep/s2104.html
30. *New USPTO Patent Fees Go Into Effect January 19, 2025*, accessed June 22, 2025, https://www.fr.com/insights/thought-leadership/blogs/new-uspto-patent-fees-go-into-effect-january-19-2025/
31. *The Impact of U.S. Patents on International Business* - Oblon, accessed June 22, 2025, https://www.oblon.com/publications/the-impact-of-u-s-patents-on-international-business
32. *3 Types of Patents Explained Simply*, accessed June 22, 2025, https://allendyer.com/what-are-the-3-types-of-patents/
33. *Patent types explained: utility, design, and plant* - Patent Lawyer Magazine, accessed June 22, 2025, https://patentlawyermagazine.com/patent-types-explained-utility-design-and-plant/
34. *35 U.S. Code § 102 - Conditions for patentability; novelty* - Law.Cornell.Edu, accessed June 22, 2025, https://www.law.cornell.edu/uscode/text/35/102
35. *Patent Application Cost* - Bitlaw, accessed June 22, 2025, https://www.bitlaw.com/guidance/patent/what-does-a-patent-application-cost.html
36. *The examination process* - USPTO, accessed June 22, 2025, https://www.uspto.gov/sites/default/files/documents/BM-Sep-2023-The-examination-process.pdf
37. *Patent Office Issues New Guidance on the Law of Obviousness* - Baker Botts, accessed June 22, 2025, https://www.bakerbotts.com/~/media/Files/Thought-Leadership/Publications/2024/March/Patent-Office-Issues-New-Guidance-on-the-Law-of-Obviousness.pdf

ZYL LAW FIRM LLC
101 Nicoll Street, New Haven CT 06511
+1-203-551-1548
ip@zyllaw.com
https://zyllaw.com/index.php

38. *2001-Duty of Disclosure, Candor, and Good Faith* - USPTO, accessed June 22, 2025, https://www.uspto.gov/web/offices/pac/mpep/s2001.html
39. *Provisional vs. Nonprovisional Patent Application: What Is the Difference?* - LegalZoom, accessed June 22, 2025, https://www.legalzoom.com/articles/provisional-vs-non-provisional-patent-application-what-is-the-difference
40. *What is an Information Disclosure Statement or IDS?* - Patent Trademark Blog, accessed June 22, 2025, https://www.patenttrademarkblog.com/what-is-an-ids/
41. *Duty of Disclosure and Duty of Reasonable Inquiry* - USPTO, accessed June 22, 2025, https://www.uspto.gov/sites/default/files/documents/uspto_1.56_and_11.18_webinar_20230223_.pdf
42. *The patent examination process* - USPTO, accessed June 22, 2025, https://www.uspto.gov/sites/default/files/documents/patent_examination_process.pdf
43. *2131-Anticipation — Application of 35 U.S.C. 102* - USPTO, accessed June 22, 2025, https://www.uspto.gov/web/offices/pac/mpep/s2131.html
44. *The Grace Period for Novelty in Chinese Patent Law*, accessed June 22, 2025, https://www.lindapatent.com/en/info/insights_podcasts/2023/0621/1872.html