

## Should I Do a Provisional, Non-Provisional, Or a PCT?

### This Patent Stuff and My Semiconductor Business – Part 10

*Welcome to this post about patents and chips. Not a lot has been written about this combination, but there is a lot to know, especially for the innovators and entrepreneurs themselves. In this three-weekly series, I talk about various aspects, from my dual points of view of a patent agent and a semiconductor entrepreneur. If you like the article and read it on LinkedIn, give it a thumbs up, and/or click on Follow. If you like to work with us for your next patent, "contact us" info is on [www.icswpatent.com](http://www.icswpatent.com). You can also subscribe/unsubscribe for short email alerts when the next post is available.*

In this column, let's discuss something quite practical. It shouldn't be an issue, and quite frankly, any patent practitioner should be able to explain your options. Yet, I find that it needs to be discussed, because people don't know.

Your situation is presumably: you have an unpatented invention, and you have an IP protection strategy (see for this the prior column I wrote: [Developing an IP Protection Strategy for Your Semiconductor Company – PART I](#) and [PART 2](#)). You have also prioritized in which countries you should file a patent (see: [In What Countries Should I Patent, Anyway?](#)).

So, as a result, you know that this particular invention must be patented, and, for instance, the priority order of the countries to patent in is Taiwan, China, US, and Korea. There may be a couple of European countries as well.

So you should file something, but what? Here's the overview:

	Pro	Con
<b>Provisional application</b>	<ul style="list-style-type: none"><li>Gives up to a year extra coverage at little cost, and can protect all parts of the invention that are well described</li><li>Allows adding elements during the first 12 months</li><li>Will not be published if not followed by a non-provisional application</li><li>Can be followed by either PCT or multiple non-provisionals</li><li>Can push out the costs of getting the patent for one country</li></ul>	<ul style="list-style-type: none"><li>None (although not all countries or jurisdictions offer the possibility of a provisional application)</li></ul>
<b>Non-provisional application</b>	<ul style="list-style-type: none"><li>Less expensive than PCT if you plan to file in just a few countries, but the cost comes earlier</li></ul>	<ul style="list-style-type: none"><li>Everything must be fully described at the time of filing</li><li>Will be published, even if the patent is not granted or the application is abandoned</li></ul>

<b>International application (PCT)</b>	Pushes out the cost of getting the patents in the various countries Pushes out the time that a decision must be made in which countries to file	More expensive overall No good for Taiwan
<b>European patent</b>	Reduces the cost of applying for patents in multiple European countries because it needs to be prosecuted (see below) only once.	

For the following discussion, you need to know that the process of defending your application and obtaining the patent is called **prosecution**. During prosecution you will face filing costs (as well as search and examination fees) at the start and issue costs at the end (when your patent has been allowed and must issue). After the patent has been issued, most countries charge maintenance costs. In some countries those are yearly, in other countries, such as the US, at a couple of fixed points. Maintenance costs in the US are calculated from the issue date, but in some other countries they are based on the date of filing the application. Apart from a country's patent office fees, you also need to pay for the efforts of your practitioner, usually a significant chunk, and international associates. Let's look at three scenarios, illustrated in

If you're in a cash crunch now, but you feel this will be over within a year, you will file a provisional application this year. You file it in any one of the four countries on your priority list. The country you file in is the country from which you plan to manage the international or multinational filing process. It really should be the country in which you have selected your favorite patent practitioner. For instance, the US if you work with me! Keep in mind that not all countries have provisionals, although I believe that most do recognize provisionals filed in a different country.

Then, after about 10½ months, you need to have the provisional application changed into a non-provisional application. At this point, you can add any new knowledge that you have about your invention (the biggest advantage that the provisional gives you—although the added matter will be protected only from the moment it was first added to the file). You translate the non-provisional application into English (for the US), traditional Mandarin (for Taiwan), simplified Mandarin (for China), and Korean. Then you file concurrently, before day 365, in all four countries.

At this point, you may consider an option that you have. If you pay extra in the US (about USD2,100 if your company has fewer than 500 employees) you can have accelerated examination. That results in a good chance that your US patent is issued within one year (as

compared to a couple of years normally). If your US patent has any claims allowed, you have the possibility to request that the other countries follow the **Patent Prosecution Highway (PPH)** process, by basically accepting the results of your US actions on that claim. This saves cost overall, and results in your having



**Figure 9 - Flags of Patent Prosecution Highway Jurisdictions for the USA**

the patents earlier. "The" PPH "program" is a set of bilateral and multilateral cooperation agreements among patent offices of various jurisdictions. For instance, for the USA it is with jurisdictions as shown in the flags image on the right (provided by the USPTO).

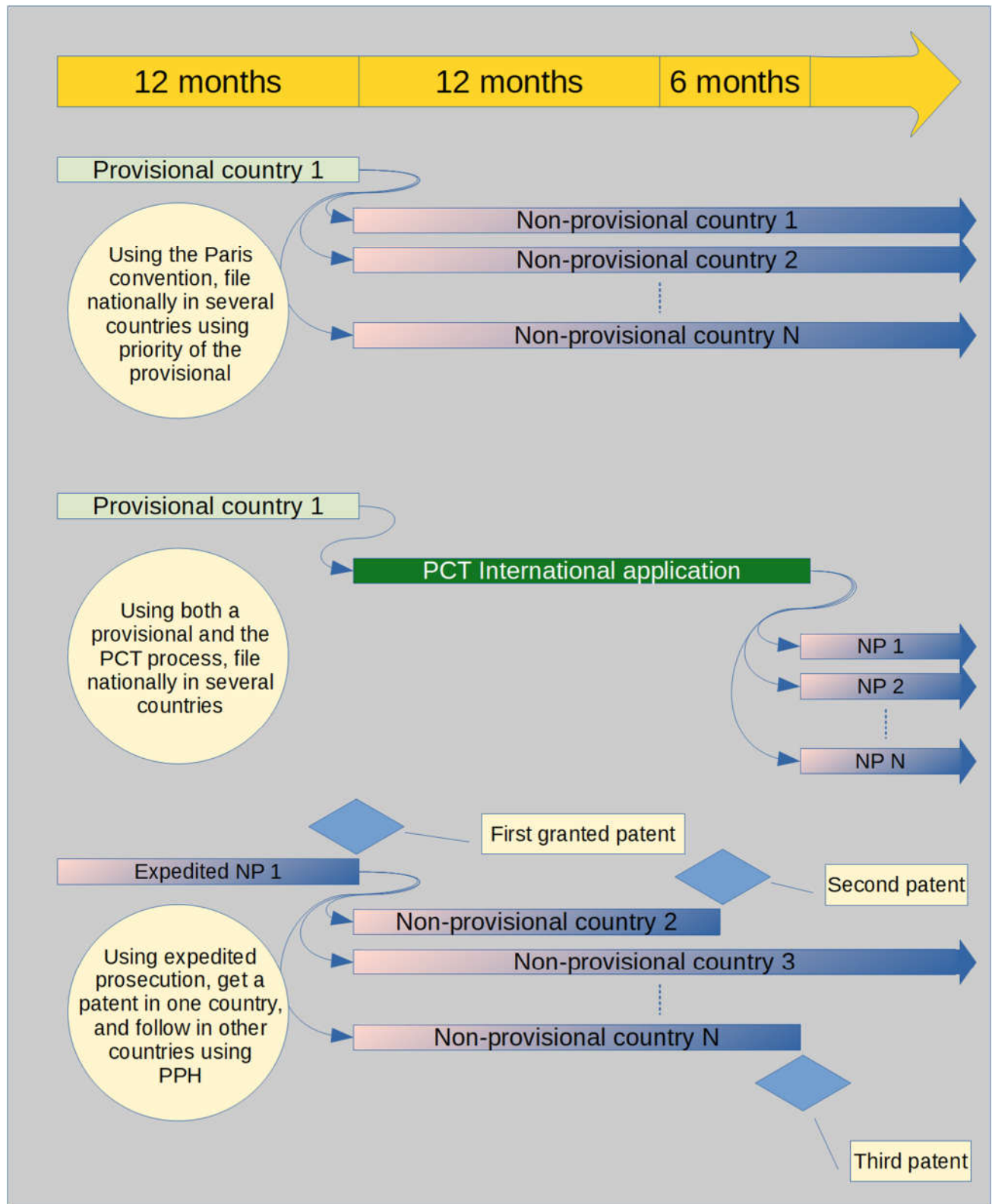


Figure 10. Three different scenarios for obtaining patents internationally

So based on fast prosecution in the US, you will have faster and lower cost prosecution in both China and Korea. In Taiwan you will follow the normal process.

Let's change the scenario a bit. You're in a cash crunch now and for the next two years. In that case, you'd still file the provisional, because it gives you the option to add things for up to 365 days. But at 364 days you file a PCT, also known as international application. The PCT is based on your provisional, plus whatever you decide you needed to add. Although the PCT adds a bit to the total cost, it also pushes out the cost of the national prosecution in various countries. Instead of in 12 months, you must start the national prosecutions in 30 months. However, the PCT process is not available for Taiwan, so in Taiwan you must file a non-provisional in 12 months, based on the provisional you filed. The PCT is active from month 12 (at the latest) until month 30 (at the latest), when you file non-provisionals in the US, China, and Korea. After month 30, you still have the normal prosecution delays in those countries, so it may well be four to six years before you have all your patents. Although this means that those patents are pending for a very long time, it also means that your patent costs (and in some cases the maintenance costs) are pushed out.

For Europe, based upon the PCT you can file a European patent application up to 31 months from your priority date (the filing date of your provisional).

Let's change the scenario again. You have decent funding, and you need to show issued patents rather than pending patents, because your VCs want to show proven value as quickly as possible to enable a profitable sale of their shares once they exit. In this case, you file a non-provisional in one country and pay up to have expedited prosecution. In this process, you expect your patent to issue within a year. As soon as the patent is allowed, but before it issues and definitely before 365 days, you file non-provisionals in the other countries (where, up to the point of regional allowance, you consider Europe as a single country). These applications in the other countries are based on the most recent version of the application in the first country. You discuss with your VCs whether you should make use of the PPH. Even though the PPH doesn't cost you anything, it can still result in earlier patents in those countries, and thus earlier costs of issuing these patents, and earlier payment of the maintenance costs. But of course, it speeds up the value growth of your company.

## **Upcoming:**

- 11 What Makes an Inventor, and How Can I Stimulate Innovation?
- 12 My Invention is Vital for My Business Plan. But I Don't Have Much Money Yet. How Can I Save?
- 13 I Want to Protect It Now—But Am Still Working Out Architecture Details. Can I Add Those Later?
- 14 I Want to Use an FPGA Before an ASIC. Can It Be One Patent?

**Published so far** (find the articles on [www.icswpatent.com](http://www.icswpatent.com) or #ThisPatentStuff):

- 1        So You Got This Great Idea That Will Wipe Out Competition. Now What?
- 2        Developing an IP Protection Strategy for Your Semiconductor Company – PART I
- 3        Developing an IP Protection Strategy for Your Semiconductor Company – PART II
- 4        In What Countries Should I Patent, Anyway?
- 5        Choosing the Right Patent Person for Your Inventions
- 6        How is a Chip or Firmware Patent Different than Other Patents? What About a Software Patent?
- 7        Woohoo! I Invented a Huge Improvement over My Competitor's Invention!
- 8        I'll Be A Billionaire Soon Enough. But Now I'll Just Buy This Book on Patent Writing on [thriftbooks.com](http://thriftbooks.com).
- 9        My CTO Can't Explain His Invention to Me. But He Is the Smartest Guy in the World.
- 10       Should I Do a Provisional, Non-Provisional, Or a PCT?

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