ESSENTIAL PATENTS AND LTE

As the commercialization of LTE progresses, there is quite logically a growing interest in understanding who owns the intellectual property rights behind this exciting technology and how they are licensed. Although this topic is sometimes framed in contentious terms, this licensing is the foundation of a healthy LTE ecosystem in which innovation is encouraged and rewarded through patent rights and royalties.

While the importance of identifying the companies who hold the rights to essential LTE patents is evident, the methods of doing so are not. In fact, two of the most commonly used means of attempting to measure essential patent holdings – declarations to the European Telecommunications Standards Institute (ETSI), an independent, non-profit standardization organization, and keyword searches of databases – have no correlation to essential patent strength. Those who substitute easily accessible information for a deep technical claim analysis of all declared patents contribute to the many common misconceptions that stir controversy and confuse licensees.

What is an essential patent?

One of the most obvious criteria for an essential patent – yet one that is often overlooked in analyses of portfolio strength – is that it must actually be issued. While patent applications are pending before the Patent Office, they have no legal standing until and unless they are issued. If the search is performed on patent applications, rather than patents that have been granted, we can determine neither which of the applications will be issued as patents nor the eventual scope of the issued patent claims.

Members of ETSI are required to declare patents and patent applications to the organization if they believe those patents could become essential. ETSI does not, however, check those declarations for essentiality or validity. Accordingly, these declarations do not indicate essential patent strength.

Once a patent is issued, every part of that claim must be found in the mandatory elements of the standard. The language used to describe a patent only serves to clarify the scope of the patent claim. When searching the complete text of a patent document, a hit for the chosen keyword for instance in the abstract gives a positive result despite the abstract having no legal binding. Furthermore, the lack of generic, commonly used key words makes it impossible to use these descriptions as an indicator of the strength of essential patents. In short, analyses that use free text searching of patent databases using key words defining the technology also are irrelevant to essential patent strength.

Assessing essential patent strength

To put it simply, essential patent strength can only be determined by granted essential patents. A patent’sessentiality is tested in detailed technical discussions mapping patent claims to the technical specification of the standard on a feature by feature basis.
Absent a thorough analysis of all granted and possibly essential patents, a strong indicator of essential patent strength can be shown by investigating technical contributions approved and adopted into a standard specification. Although this information is accessible to those who wish to analyze it, this is also a very involved process that requires a deep technical understanding of the standard. Such scrutiny involves reviewing meeting minutes from standardization work groups to determine which member originated the approved technical contributions. Only after a contributing member is identified is it possible to determine whether that member does, in fact, hold the patent rights to the contributed technology.

**Ericsson’s LTE patent position and the FRAND commitment**

Ericsson’s investment into what would eventually become the LTE standard began in the early 1990s with research into orthogonal frequency-division multiplexing (OFDM). Ericsson’s early recognition of, and exclusive focus on, LTE as the global fourth-generation wireless standard meant that our R&D investment was overwhelmingly directed toward that technology.

Analysis of 3rd Generation Partnership Project (3GPP) meetings shows that Ericsson also has affected the released LTE specification more than any other company. Finally, as the LTE standard reuses solutions to problems that already have been addressed in GSM and WCDMA/HSPA, Ericsson has a wealth of granted patents in those standards that also apply to LTE.

It is our philosophy that licenses for patents essential to standards should be widely available at fair, reasonable and non-discriminatory (FRAND) terms, subject to reciprocity, to compensate companies that have invested substantially in developing these standards. Our licensing terms for essential patents comply with common industry interpretation of FRAND.

As the leader in LTE, Ericsson is the single largest contributor of approved LTE submissions to 3GPP through June 2014 as found in a report from Signals Research.

**NOTES TO EDITORS:**

*Ericsson is the driving force behind the Networked Society - a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, businesses and societies to fulfill their potential and create a more sustainable future.*

*Our services, software and infrastructure - especially in mobility, broadband and the cloud - are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities.*

*With more than 110,000 professionals and customers in 180 countries, we combine global scale with technology and services leadership. We support networks that connect more than 2.5 billion subscribers. Forty percent of the world’s mobile traffic is carried over Ericsson networks. And our investments in research and development ensure that our solutions - and our customers - stay in front.*
Founded in 1876, Ericsson has its headquarters in Stockholm, Sweden. Net sales in 2013 were SEK 227.4 billion (USD 34.9 billion). Ericsson is listed on NASDAQ OMX stock exchange in Stockholm and the NASDAQ in New York.

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