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Patents/Validity

Unwired Planet Wins Again As Patent Dodges Sufficiency Attack

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The third technical trial featuring Unwired Planet International Ltd. facing off against Huawei Technologies Co. Ltd. and Samsung Electronics Co. Ltd. has ended in a weighty judgment in Unwired's favour. The judgment provides a useful survey of different ways to attack a patent for insufficiency and a rare example of how this ground of objection can be applied in high-tech subject matter (*Unwired Planet Int'l Ltd. v. Huawei Tech. Co. Ltd.* [2016] EWHC 576 (Pat) (UK)).

This judgment may also have contributed to Unwired's recently announced sale of its portfolio to Optis UP Holdings, LLC for \$30 million up front (30 WIPR ???, 5/1/16). Optis UP appears to be related to PanOptis Patent Management, LLC, a longstanding patent assertion entity based in Texas.

On March 22, the High Court of Justice held that Unwired's European Patent EP(UK) 1 230 818 was valid and infringed by mobile phones conforming to the relevant GSM wireless communication standards.

As we have come to expect, Justice Colin Birss's judgment is substantial and delves deep into the detail of the technology and addresses thoroughly all of the is-

sues. The patent is rather short – amounting to 19 paragraphs and 9 claims, a total of about 2,400 words. The judgment on infringement and validity of that short patent by contrast amounts to 242 paragraphs and over 28,000 words. One can only imagine that the other papers in the case – pleadings, skeleton arguments, expert reports – added another order of magnitude.

Handing Off Between Networks.

The invention of Unwired's patent, acquired from Ericsson, is simple enough. As a mobile phone moves around during a call it is often necessary to transfer the connection between different base stations in order to maintain a decent connection. To enable the network to decide when such a handover is required, a mobile phone reports to the base station to which it is connected, the "signal strengths" of other nearby base stations. The process for this within GSM (2G) was well established, but with the development of 3G (UMTS) technology in the late 90s it became desirable to have a process to hand over a call between GSM and UMTS networks. This is not straightforward because the different technologies measure signal strength differently and different factors affect the user's perceived call quality.

The invention of the patent in suit was to "convert" a UMTS measurement value to a GSM measurement value, compare it to a threshold and report it in a GSM control channel if greater than the threshold. The claims, and indeed the patent as a whole, do not say

much about what is meant by "converting". This therefore was a key issue in the case, being important to construction of the claims and hence infringement, as well as invalidity attacks on the grounds of obviousness and insufficiency. The latter point is perhaps most interesting.

Lines of Attack.

A patent can be invalidated if the invention is not disclosed clearly and completely enough for it to be performed by a person skilled in the art (section 72(1(c) Patents Act 1977, Art 83 EPC). Out of this fairly simple requirement, the case law has created three distinct lines of attack on a patent.

"Classical insufficiency" is the most straightforward and simply says that the patent fails to provide the necessary information to put the invention into effect without undue effort. Something is missing, perhaps the method of synthesis of a key ingredient or necessary parameters of a method.

"Biogen insufficiency" is that the invention cannot be practiced across the full scope of the claims; the claims are too broad and encompass things that cannot be put into practice on the basis of the inventor's contribution.

The third is a form of "ambiguity" and arises when the claim is inherently so unclear that a potential infringer cannot determine whether or not she falls within the claim.

The attack in this case was of the third kind. Birss J reviewed the long history of the statute and the case law and noted the existence of an ambiguity does not necessarily render the claim invalid. Rather the claim must be so bad that the potential infringer really has no hope of reliably deciding whether she is within or without its scope. He explained that it is not enough that there are "puzzles at the edge of the claim" or "fuzzy boundaries."

Birss J noted that the recent cases of claims being bad for invalidity required technical tests that could not be reliably performed, but noted that the principle cannot be limited to such tests.

Here, the defendants argued that because the patent did not contain sufficient direction as to the meaning of "conversion," the skilled reader "would be unable to implement the invention, or determine whether they were working the invention, without undue effort or at all".

The meaning of conversion was difficult because the measures of signal strength used in GSM and UMTS are not directly comparable nor related in a straightforward manner to the likely call quality, which itself could be measured in a variety of ways, such as the rates of bit errors, dropped packets or dropped calls.

Thus conversion of the signal level measurements is not a simple matter like conversion of temperatures in Fahrenheit to Celsius but more like comparing a forecast temperature to a forecast wind speed to decide which will be a nicer day.

There were two aspects of conversion: converting the

UMTS measurement into a value that could be compared to the GSM measurement and formatting that value so that it can be transmitted in a GSM control frame.

The GSM measurement of signal level (RXLEV) expressed signal levels in dB as a six digit binary number (i.e. a decimal between 0 and 63) whilst the UMTS measurement RSCP was in dBm expressed, for reporting within UMTS, as a seven digit binary number (i.e. a number between 0 and 127).

However, to report the signal strength of a UMTS cell in a GSM control channel the standards require that this seven digit number is converted to a six digit number according to a specified mapping scheme. Reverting to the forecasting metaphor, rather than trying to compare a temperature which might be in a range of -10 to +30 degrees Celsius to a wind speed which might be from 0 to 100 mph, both have been converted to a number in the range of from 0 to 63 and can be compared. Thus the standards do satisfy this part of the claim.

Birss J. summarized several of the defendants' arguments that conversion did not take place as considerations of the thought processes or motives of the designers of the relevant standards. This however was held irrelevant: the claim in the patent is not about motives but the objective characteristics of the process.

Since Birss J. was able to decide that the standards did perform a form of conversion, he concluded that the claim was clear. The ambiguity could therefore be described as a difficulty at the edges, rather than a fundamental inability to decide whether an alleged infringement takes the invention.

One other feature of the claim came in for detailed consideration: the converted values had to be compared to a threshold and "if at least one of said converted . . . measurement values exceeds a predetermined threshold measurement value, sending said at least one of said converted . . . measurement values". The standards mandate a complex decision process with four priority levels for deciding measurements of which neighboring cells to report. The first three levels were not alleged to infringe but the fourth priority level involved reporting both GSM and UMTS cells which have measurement levels (converted in the case of the UMTS cells) that are greater than *or equal to* a threshold.

The defendants argued that checking if the measurement is greater than *or equal to* a threshold is not the same as checking if it *exceeds* a threshold. Correctly, this was given short-shrift; given the comparison is between integer values, checking if the measurement is greater than or equal to a threshold is exactly the same as checking if it exceeds a threshold one less. And so infringement was found.

Inventive Step Attacks Fail.

Attacks on the inventive step of the patent were no stronger. Birss J. held that considering all the available prior art and the common general knowledge, the obvious approach would have been to report UMTS measurements in UMTS format, not convert the measurements to GSM format. Hence the patent was inventive.

With three of the five technical trials between these parties complete we now have two judgments in Unwired's favor and one for Huawei and Samsung.

The two technical trials still to come are Trial D relating to standard essential patent EP (UK) 1 105 991 and Trial E relating to non-essential patent EP (UK) 0 989 712. EP

(UK) 1 105 991 relates to the encoding of data with socalled scrambling codes and the synchronisation of transmitter and receiver. Non-essential patent EP (UK) 0 989 712 relates to secure communication of data over wireless networks. This patent was not acquired from Ericsson but developed by Unwired's own engineers in its period as an operating company.

Text is available at http://src.bna.com/dVC