

**EIP**

# InterDigital v Lenovo [2023] EWCA Civ 34

## Background

At first instance, His Honour Justice Hacon found EP 2 485 558 valid and essential to LTE. Lenovo were granted permission to appeal by Lord Justice Arnold against a finding of inventive step over a Samsung document submitted during the standard-setting process (T-doc R2-052409, referred to as “**Samsung**”). Although he gave permission to appeal, Arnold LJ suggested that Lenovo “faced an uphill task”.

The relevant claim is Claim 1, which discloses a process by which (1) a base station informs a mobile the details of its resource allocation on the non-contention-based uplink control channel, (2) the mobile then requests resources for uplink transmission, and (3) the mobile monitors a downlink channel for allocation from the base station of uplink resources. Step (2) is achieved by a transmission burst, the presence of the burst being taken as a request for resources.

The concept of using the presence of a transmission burst as a way to send information was common general knowledge, known as on-off keying (“**OOK**”), although HJH Hacon found that any use of OOK in cellular networks was not common general knowledge.

Samsung also discloses a process by which a mobile could request resources from a base station. This process is the same as the process in Claim 1, with the exception of the request for resources. In Samsung, this is done by sending an 18 bit “E-DCH SI” message. The presence of this message was not a request – the message needed to be decoded.

Lenovo put their obviousness argument over Samsung in two ways. The first effectively involves two steps – first one would switch from an 18-bit message to a single-bit message; then one would switch from a message that needs to be decoded in order to

request resources to a message whose presence is a request for resources (the “**OOK approach**”). HJH Hacon felt that neither step would be obvious, stating that Lenovo’s argument that the OOK approach would be obvious was “tainted with hindsight” and that a skilled person would not be motivated to drop 17 bits of information.

Lenovo’s secondary case is that the skilled person would keep the transmission burst as an 18-bit message, but that the presence of the message would “implicitly” be a request for resources. HJH Hacon stated that this approach would also require the step of the skilled person moving to an OOK approach, and he had already found that this was not obvious.

### **The appeal**

Lenovo appealed the judge’s finding of inventive step over Samsung in a number of different ways – they raised four grounds in relation to their primary case, and one in relation to their secondary case.

#### Ground 1(a)

The first ground that Lenovo asserts is that the judge failed to take into account the absence of a stated advantage of the inventive concept, and therefore does not dispel the technical prejudice that the judge stated a skilled person would have towards the two steps required for Lenovo’s primary obviousness argument. The Court of Appeal stated that the judge in fact found no technical prejudice towards the second step (switching to the OOK approach), ie the “lion in the path” alleged by Lenovo was a mere “paper tiger”. As to the first step, would not have had any prejudice towards the possibility of a 1-bit message being made to work, just that they would not have chosen to move from a system which uses an 18-bit message to one which uses a 1-bit message. The Court of Appeal therefore dismissed this ground.

#### Ground 1(b)

Lenovo stated that the judge had erred when dismissing their argument that the skilled person would be motivated to switch from an 18-bit message to a 1-bit message in order to “minimise resource allocation and to maximise the number of UEs that a cell could service”. The expert evidence agreed that while this would be a consideration for a skilled person, it would not be a significant saving and would be a trade off for the loss of information provided. The Court of Appeal therefore found that the judge was correct when he found that the skilled person would “have an open mind”, and would not be particularly motivated either way. The Court of Appeal therefore dismissed this ground.

#### Ground 1(c)

Lenovo argued that the judge erred in finding that OOK “was an old idea not thought to be of practical utility in cellular networks but this could not be relied upon in support of inventiveness because the Patent did not show it to be practical, contrary to the prejudice”.

The Court of Appeal stated that the judge did not in fact made any such finding, but instead found that the skilled person was unlikely to have thought of OOK as it was seldom used in modern systems, and that Lenovo’s assertions to the contrary were tainted by hindsight. The Court of Appeal therefore dismissed this ground.

#### Ground 1(d)

Lenovo’s final ground on their primary case was that the judge had erred in his finding that any use of OOK in cellular networks was not common general knowledge, due to the judge stating that a textbook, which contained a use of OOK in 3G, “distilled” the common general knowledge at the relevant time. Lenovo argued that these findings were inconsistent. The Court of Appeal did not consider there to be any such inconsistency. Although the judge felt that the contents of the book, in general, were common general knowledge, neither party asked the judge to make a finding on that particular passage of the textbook, and indeed Lenovo’s expert described this passage as “a little complicated and not the best example”. The Court of Appeal therefore dismissed this ground.

#### Ground 2

Lenovo alleges that there is an inconsistency in the way that the judge decided against their secondary case. The judge found that Samsung disclosed a mechanism for requesting uplink resources, stating “... sending the message serves as a mechanism for asking for UL resources, although that could be done by a signal within the message.” Lenovo argue that this is a finding that Samsung discloses two approaches – one that message includes a scheduling request once it has been decoded, and a second that the presence of the message is a request, aka an implicit disclosure of OOK. The Court of Appeal dismissed this construction of the sentence, stating that the sentence is actually saying that Samsung discloses the idea of using the message as a mechanism for uplink resources, and then explains the approach to take. Given the approach set out, a skilled person would not further interpret Samsung as a proposal to ask for uplink resources without the need to decode the message. The Court of Appeal therefore dismissed this ground.

#### **Conclusion**

The Court of Appeal, in a decision written by Lord Justice Birss, and agreed by Lord

Justice Warby and Lady Justice Falk, dismissed all of Lenovo's grounds of appeal. <sup>[1]</sup> The decision of HJH Hacon therefore stands, and the patent is valid and essential.

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[\[1\]Interdigital Technology Corporation & Ors v Lenovo Group Ltd & Ors \[2023\] EWCA Civ 34 \(19 January 2023\) \(bailii.org\)](#)