IN THE HIGH COURT OF JUDICATURE AT MADRAS

Judgment reserved on	10.11.2023
Judgment pronounced on	28.02.2024

CORAM

The Hon'ble Mr. Justice **SENTHILKUMAR RAMAMOORTHY**

(T) CMA (PT) No.71 of 2023
(OA/3/2021/PT/CHN)

Microsoft Technology Licensing LLC
[Earlier Microsoft Corporation (Assignor)]
One Microsoft Way
Redmond, Washington 98052
United States of America ...Appellant

v.

Assistant Controller of Patents and Designs,
Government of India, Patent Office,
Intellectual Property Office Building,
Cp-2, Sector V, Salt Lake City,
Kolkata – 700091. ...Respondent

PRAYER: This Civil Miscellaneous Appeal is filed under Section 117-A of the Patents Act, 1970, to set aside the order dated 29 September 2020 issued by the Respondent and direct that Patent Application No.1783/CHENP/2012 proceed to grant.

For Appellant : Ms.Vindhya S.Mani,
Mr.Kiran Manokaran,
for M/s.Lakshmikumaran and Sridharan

For Respondent : Mr.S.Diwakar, SPC &
Mr.Saroj Kumar Singh,
Assistant Controller of Patents & Designs

JUDGMENT

Background

The appellant assails an order dated 29 September 2020 by which Indian Patent Application No.1783/CHENP/2012, which is the national phase application derived from PCT Application dated 15 September 2010, was rejected.

2. The appellant filed the above-mentioned application on 27 February 2012 for an invention titled "Message Communication of Sensor and other Data" claiming priority from 23 September 2009. Pursuant to a request for examination, the first examination report (FER) was issued by the respondent on 27 June 2019. The appellant filed a detailed response thereto on 27 December 2019. Along with such response, amended claims 1 to 14 were filed. The hearing was conducted on 14 July 2020 and the appellant filed written submissions thereafter. Eventually, by order dated 29

September 2020, the application was rejected. The present appeal arises in the said facts and circumstances.

Counsel and their contentions

3. Oral arguments were advanced by Ms.Vindhya Mani, learned counsel for the appellant; and by Mr.S. Diwakar, learned SPC, assisted by Mr.Saroj Kumar Singh, Assistant Controller of Patents,on behalf of the respondent. Both parties also filed written submissions.

4. Learned counsel for the appellant submitted that the invention is titled "Message Communication of Sensor and other Data". She pointed out that computers and other machines are often equipped with sensors, such as an accelerometer, a light sensor or a global positioning system (GPS) receiver, that allow the machine to detect various aspects of its environment. She next submitted that computers typically provide an interface to the sensors so that software on the machine can read data from the sensors. For such purpose, she submitted that the computer's operating system may provide an application programming interface (API) that allows applications

to read sensor values, but that such sensor interfaces complicate the design of the software because they typically involve complex control flow loops that respond to events. On account of such complexity, learned counsel submitted that many programmes do not make use of sensor data.

5. By referring to paragraph [0004] of the complete specification of the claimed invention, learned counsel submitted that the appellant's invention is aimed at providing a solution to the above problem by a simple light weight messaging system.Towards this end, she submitted that the invention envisages a sensor service whereby applications that want to receive sensor values subscribe to sensor notifications through the sensor service. The sensor service may determine on the basis of triggers - such as changes in sensor values or passage of time - that messages should be generated. She further submitted that these light weight messages do not require the writing and use of code. By contrast, she submitted that the prior art envisaged that the sensor readings would be incorporated into the application's run time loop and that the application would be required to include code to initialise and instantiate the API, and to manage the data from the API.

6. Learned counsel next contended that the respondent rejected the patent application by relying on an order dated 02 November 2012 of the Intellectual Property Appellate Board (the IPAB) in OA/250/2012 and recording blanket statements that non-obviousness "demands that the claimed invention be sufficiently removed from the prior art" and that non-obviousness enquiry is "a more aggressive sentry". By referring to the judgment of the Delhi High Court in *Agriboard International LLC v. Deputy Controller of Patents and Designs(Agriboard), 2022: DHC: 1206*, learned counsel submitted that inventive step analysis requires the controller to examine the following in three steps: the invention disclosed in the prior art; the invention disclosed in the application under consideration; and the manner in which the subject invention would be obvious to a person skilled in the art. By asserting that the respondent did not undertake such analysis, learned counsel contended that the impugned order violates the principles of natural justice and is liable to be set aside.

7. By relying on the judgement of the Division Bench of the Delhi High Court in *F Hoffman La Roche Ltd v. Cipla Limited (Hoffman La*

Roche)2015: DHC: 9674, learned counsel submitted that the impugned order does not contain any findings with regard to identification of the person skilled in the art. On the contrary, learned counsel contended that the respondent recorded the vague statement that a person skilled in the art is assumed to be willing to make trial and error experiments to get it to work. Therefore, she submitted that the impugned order is liable to be set aside. She also relied on the judgment of the Delhi High Court in *Biomoneta Research Private Limited v. Controller General of Patents Designs and another(Biomoneta),2023/DHC/001816*, wherein the Delhi High Court held that lack of inventive step requires a person skilled in the art to be able to jump from the existing prior art to the subject invention. According to learned counsel, the impugned order fails to even consider the problem and the solution provided by the claimed invention in relation thereto.

8. She reiterated that the prior art was complex in as much as sensor readings were incorporated into the applications' run time loop, thereby requiring the writing of code for purposes of initialising and instantiating the API, and to manage the data coming therefrom. This problem was addressed by the claimed invention by providing sensor readings in the form

of lightweight messages to multiple applications running on a computer device. By contrast, learned counsel contended that prior art D4 is aimed at data management by publishing data from the sensors to the subscribing application only when an event of interest occurs. She also pointed out that the nature of the problem addressed by D4 is evident from paragraphs [0007] to [0010] thereof.

9. Submissions were made on behalf of the respondent in response to the above. By referring to paragraph [0004] and [0014] of the complete specification, the respondent submitted that the claimed invention provides for subscription to sensor data. For instance, it was submitted that there could be a subscription to accelerometer readings whereby a message would be generated and sent to the subscribing application if the accelerometer values change. By pointing out that a sensor service acts as an intermediary between applications and a sensor interface and that it communicates sensor data to the application in the form of messages, the respondent pointed out that the claimed invention and prior art D4 are nearly identical and that the only difference is in the terminology used. By comparing paragraph [0011]

of the claimed invention with paragraph [0039] of prior art D4, the respondent submitted that the claimed invention refers expressly to sensors such as accelerometers, GPS or some other type of sensor, whereas prior art D4 refers generically to devices that generate a value indicative of temperature, light, magnetic field, air flow, acceleration, vibration, sound, or power. In substance, it was contended that both the claimed invention and prior art D4 are the same.

10. In order to further substantiate that the only difference is in terminology, the respondent referred to the meaning of the word 'message' and pointed out that said word means communication, notification, announcement, memo and the like. Against this backdrop, with reference to paragraphs [0057] and [0058] and claims 1, 2 and 5 of prior art D4, the respondent submitted that the said paragraphs of the complete specification indicate that data is published when an event of interest occurs. According to the respondent, the expressions 'message' and 'published data', which are used in the claimed invention and prior art D4, respectively, are identical in substance and function, and that the only difference is in terminology. In

order to counter the contention that prior art D4 relates to managing data whereas the claimed invention relates to reducing application complexity, it was contended that the sensor service of the claimed invention sends messages depending on subscription request and, therefore, the claimed invention is also directed at managing data at the sensor service level.

11. The respondent also pointed out that both the claimed invention and prior art D4 disclose an embodiment where the sensors, the sensor API, the sensor service and the subscribing application are located in the same device and an embodiment where they are located in different devices. Once again, it was emphasised that the difference is limited to terminology in as much as prior art D4 uses the terminology 'source entity' to describe the device housing the sensors, sensor API and sensor service, and the terminology 'sink entity' to describe the device housing the subscribing application. By referring to figure 1 and 4 of the claimed invention, the respondent pointed out that figure 1 shows that the sensor, sensor API, sensor service and the subscribing application are in the same device, whereas figure 4 shows that the sensor, sensor interface and sensor service

are present in computer 400, whereas the subscribing application is in a different entity/device. For all these reasons, the respondent submitted that the claimed invention lacks inventive step and that no interference is warranted with the impugned order.

Discussion, analysis and conclusions

12. The operative paragraph of the impugned order is as under:

> *"In view of the cited documents' relevant teachings and Applicant's reasoned arguments regarding the said teachings, reference is now made to Hon'ble IPAB order No.250/2012 dated 02/11/2012, where it is enunciated that "once the very subject-matter of the invention has been disclosed by the prior art.....the person skilled in the art is assumed to be willing to make trial and error experiments to get it to work." It further opined that said person is not a person of exceptional skill and; knowledge.....He must, however, be prepared to display a reasonable degree of skill and knowledge of the art in making trials...." Regarding obviousness, the observations are noteworthy, "When there is a design need or*

market pressure to solve a problem and (there) are a finite number of identified, predictable solutions, a person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense...." The aforementioned IPAB order concludes that non-obviousness " demands that the claimed invention be sufficiently removed from the prior art", and that non-obviousness enquiry is a "more aggressive sentry".

Hence alleged invention claims lack inventive with respect to cited documents."

The conclusion that follows from the above paragraph is that the application for the grant of patent was rejected under Section 2(1)(ja) of the Patents Act, 1970 (the Patents Act) largely on the basis that the claimed invention would be obvious to the person skilled in the art based on the teachings of D4.

13. The conclusions in the impugned order should, therefore, be tested and the first port of call is Section 2(1)(ja), which defines inventive step and is set out below:

> "*inventive step" means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art"*

From the plain language of the section, it follows that the assessment of inventive step of a claimed invention is to be made by a two-step process:

> (i) identification of feature(s), if any, that involve technical advancement over prior knowledge or having economic significance or both; and
>
> (ii) determination of whether the technical advance or economic significance or both of said feature(s) makes the invention not obvious to a person skilled in the art.

14. The text of Section 2(1)(ja) of the Patents Act underscores the centrality of the person skilled in the art (PSITA). The obvious starting point in identifying PSITA is the field of invention, which is enabling applications in computers to receive sensor data by way of lightweight messages. The PSITA would, therefore, be a software engineer with an understanding of hardware/computer electronics. As regards level of skill, I concluded in *Rhodia Operations v. Assistant Controller of Patents & Designs,*

2024:MHC:6024;MANU/TN/0256/2024, that the level of skill of the PSITA is above average/good and that she possesses the skill set to do the job well. I also concluded that she is not omniscient and that ingenuity or inventiveness cannot be attributed to her since the object of the exercise is to determine whether the claimed invention contains an inventive step.

15. Against this backdrop, I begin the obviousness analysis with the summary of the claimed invention. Such summary is contained in paragraph [0004], which is set out below:

> *"Sensor data, and other kinds of data, may be provided to an application (or other type of program) through a simple lightweight messaging mechanism. In one example, a sensor service uses a sensor interface (such as a sensor API) to read sensor values. Programs that want to receive sensor values may subscribe to sensor notifications through the sensor service. The sensor service may determine, based on various triggers (example, changes in sensor values, passage of time, et cetera), to generate messages that communicate sensor values to the subscribing*

program(s). For example, an application might subscribe to receive accelerometer readings. The sensor service could use a sensor API to poll the accelerometer periodically for its current readings, and could generate a message whenever the accelerometer values change. This message could then be sent to the subscribing application. Since applications are typically built to handle messages and other types of interrupts received from external sources, the application can process the messages using these kinds of message-handling mechanism. Designing the application to receive and process the messages may be less complex than designing the application to read sensor values directly through the sensor interface."

From the above extract, it is evident that the problem that the claimed invention addresses itself to is the reduction of complexity by converting raw sensor data into lightweight messages which are transmitted or communicated to the subscribing application.

16. I turn next to the current claims of the appellant and set out independent claims 1 and 9:

"*I/we claim:*

1. A method of providing information to an application (116), the method comprising:

receiving from said application (116) a subscription request;

using a sensor interface (110) to obtain a reading from a sensor, said sensor interface that provides a mechanism through which sensor values are readable by application that use said sensor interface;

creating a message (114) based on a set of one or more readings, wherein said set comprises said reading; and

providing said message (114) to said application (116).

9. A machine (108) for using sensor data, the machine comprising:

a processor (402);

a date remembrance component (404);

a sensor; and

a service component (112) that is stored in said data remembrance component and that

is executable on said processor (402, said service component using a sensor interface (110) to obtain a reading from said sensor, said sensor interface being provided by an operating system that is present at said machine (108), said service component generating a message (114) based on information that comprises a set of sensor readings, said set of sensor readings (202-206) comprising said reading, said service component receiving a subscription request from an application that executes on said machine, said service component providing said message to said application based on said service component having received set subscription request from said application."

17. Since the impugned order relied only on prior art D4, a comparison should be drawn with said prior art. The abstract of said prior art is as under:

"*A wireless sensor network comprises a plurality of nodes that communicate over wireless communication links. At least one of the plurality*

of nodes receive sensor data from a sensor. A subscription for an event of interest occurring in the wireless sensor network is installed in the wireless sensor network. A publisher node included in the plurality of nodes determines when the event of interest occurs and, when the event of interest occurs, publishes data related to the event of interest for a subscriber node included in the plurality of nodes."

The independent claims of significance in said prior art are set out below:

"1. A wireless sensor network comprising:

A plurality of nodes that communicate over wireless communication links, wherein at least one of the plurality of nodes receive sensor data from the sensor;

wherein a subscription for an event of interest occurring in the wireless sensor network is installed in the wireless sensor networks;

wherein a publisher note included in the plurality of nodes determines when the event of interest occurs and, when the event of interest occurs, publishes data related to the event of interest for a subscriber note included in the plurality of nodes.

8. A wireless sensor node, comprising:

a wireless transceiver to communicate over wireless communication link;

a sensor interface to receive sensor data from a sensor;

wherein when the wireless sensor node receives, from the wireless communication link, request comprising an event filter associated with an event of interest, the wireless sensor node filters the sensor data in order to determine when the event of interest occurs; and

wherein when the event of interest occurs, the wireless sensor node transmits event data related to the event of interest to a requesting node over the wireless communication link."

18. The above extracts disclose that both the claimed invention and the cited prior art deal with transmission of sensor data to a subscribing application. In the cited prior art, the transmission is triggered by an event of interest. Both the summary of the claimed invention and independent claim 9 indicate that a sensor service is used in the claimed invention,

whereas such sensor service is not a part of cited prior art. The other aspect to notice is that the claimed invention enables the subscribing application to receive and process messages rather than to read raw sensor values. The cited prior art also provides for the subscription of sensor data and the publication thereof upon occurrence of an event of interest, but even disregarding the difference in terminology there is no indication therein that the 'published data' is in an easy-to-read form. The inference that flows from the above discussion is that the solution provided by the claimed invention is the conversion of raw sensor data into messages that are transmitted to the subscribing application and may be easily read by such application. By contrast, the cited prior art does not envisage the conversion of raw sensor data into easy-to-read messages. Undoubtedly, the respondent is correct in stating that both the cited prior art and the claimed invention provide for the transmission of sensor data to a subscribing application, but the difference lies in the manner in which such data is transmitted. This leads to the question whether the difference or delta between the cited prior art and the claimed invention would be obvious to a person skilled in the art, and I turn to this issue next.

19. In order to ascertain whether prior art D4 contains teaching, suggestion or motivation to lead the PSITA to the claimed invention, it is important to closely examine the problem that D4 sets out to solve. It is instructive, in this regard, to refer to the following paragraphs of the complete specification of D4:

> "*[0045]In such an embodiment, the wireless sensor network 100 is logically viewed as a set of discrete events and a set of logical entities that "generate" the discrete events. The wireless sensor network 100 is queried, in such an embodiment, by specifying a set of events of interest. With such an event-based data management model, a discrete event operator algebra can be used as a formalism to specify the behaviour of such a logical system and to verify the correctness and completeness of the specification."*
>
> *[0050] ....The source entity receives the subscription and creates an event filter for that event. The source entity "publishes" the event of interest when that event occurs. That is, when the event of interest specified in the subscription*

occurs, the source entity sends data related to that event to the specified sink entity. In this way, the nodes in the wireless sensor network 100 only monitor (and process and communicate data about) those events that are of interest to some entity in the network 100 (that is, those events to which a sink entity has subscribed."

The inference that flows from the abstract, claims and the above paragraphs is that the problem that prior art D4 addresses itself to is data management by filtering sensor data and publishing data for consumption by the subscribing application only when pre-set events of interest occur. It is further evident that there is nothing in prior art D4 that addresses the problem of complexity in the communication of data from sensors to subscribing applications. Even paragraph [0054] of the complete specification only deals with conversion of queries from the subscriber and not conversion of sensor data. Thus, not only is the problem addressed by the prior art and the claimed invention different but even otherwise the recitals and disclosures in D4 do not suggest or motivate, much less teach, the PSITA to arrive at the claimed invention. Consequently, in my view, the claimed invention would not be obvious to the PSITA from D4 because

arriving at the claimed invention from D4 requires ingenuity and not mere skill in the art.

20. Having said that, the question arises as to whether the claims, as framed, confine the monopoly claim to the transmission of data in a particular form. On examining the claims, I find that the width is required to be whittled down to confine the scope of the monopoly claim. Towards this end, it is necessary that the appellant modifies independent claim 1 and 9 as under:

> *"I/we claim:*
>
> 2. *A method of providing information to an application (116), the method comprising:*
>
> *receiving from said application (116) a subscription request;*
>
> *using a sensor interface (110) to obtain a reading from a sensor, said sensor interface that provides a mechanism through which sensor values are readable by application that use said sensor interface;*
>
> *creating a light-weight easy-to-read message (114) based on a set of one or*

more readings, wherein said set comprises said reading; and

providing said message (114) to said application (116).

9. A machine (108) for using sensor data, the machine comprising:

a processor (402);

a date remembrance component (404);

a sensor; and

a service component (112) that is stored in said data remembrance component and that is executable on said processor (402, said service component using a sensor interface (110) to obtain a reading from said sensor, said sensor interface being provided by an operating system that is present at said machine (108), said service component generating a light-weight easy-to-read message (114) based on information that comprises a set of sensor readings, said set of sensor readings (202-206) comprising said reading, said service component receiving a subscription request from an application that executes on said machine,

said service component providing said message to said application based on said service component having received set subscription request from said application."

If modified in the manner indicated above, in my view, the claimed invention would not be obvious from cited prior art. I reiterate that I reach this conclusion because the cited prior art is focused on the publication of sensor values upon occurrence of an event of interest so as to enable the subscribing application to receive sensor data only when there is a change in sensor values. By contrast, the problem resolved by the claimed invention is the transmission of sensor data in a form which is easy to process by the subscribing application.

21. For reasons set out above, (T)CMA(PT) No.71 of 2023 is allowed and the the impugned order is set aside. Hence, the application shall proceed to grant subject to amendment of the independent claims as indicated above. There shall be no order as to costs.

28.02.2024

Index : Yes/No
Internet : Yes/No
Neutral Citation : Yes/No
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To

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