

Determination of Service Invention

Author: [Harlem LU](#)

Chungang WANG v. Trane Air Conditioning System (China) Co., Ltd. (Civil Ruling (2013) Ming Shen Zi Nos. 1190 & 1191 by the Supreme People’s Court on December 18, 2013)

According to Article 6 of the *Chinese Patent Law*, an invention-creation^[1], made by a person in execution of the tasks of an entity to which he belongs, or made by him mainly by using the material and technical means of the entity, is a service invention-creation. For a service invention-creation, the right to apply for a patent belongs to the entity. After the application is allowed, the entity shall be the patentee. In these cases, the Supreme Court provided a method to determine whether an invention-creation in a patent application is a service invention.

Trane Air Conditioning System (China) Co., Ltd. (“Trane Company”) employed Chungang WANG from August, 2007 to November, 2011, and found, after Chungang WANG quitted from Trane Company, that Chungang WANG filed on May 27, 2009 at least an invention patent application No. 200910052158.2 entitled “a heat pump water heater system capable of accumulating heat and air conditioning”, and an invention patent application No. 200910052152.5 entitled “a heat pump air conditioning floor heating system”. Trane Company thus filed two civil litigations regarding the two patent applications against Chungang WANG, alleging that the inventions included in the applications are service inventions that Chungang WANG accomplished during his employment by Trane Company.

Each of the two cases has gone through the trials for the first and second instances, and the retrial before the Supreme Court. Trane Company won, in each of the two cases, both the trials for the first and second instances to be granted as the owner of the respective patent

applications. Chungang WANG requested retrials for both cases before the Supreme Court, which however are both rejected. Based on the evidence that was submitted by the two concerned parties and revealed by the corresponding judgments and rulings, the results are not surprising in the author's view. Nevertheless, the Supreme Court provided a method of determining whether an invention in a patent application is a service invention through these two rulings. Since the two cases are quite overlapped in the concerned parties, cause of action, the evidence submitted by the concerned parties, and the judge's opinions in the rulings, the discussion below is based only on the case related to the Civil Ruling (2013) Ming Shen Zi No. 1191.

The Civil Ruling (2013) Ming Shen Zi No. 1191 is related to the invention patent application No. 200910052152.5 ("the Application") entitled "a heat pump air conditioning floor heating system". In the ruling, when determining whether the Application is a service invention made by Chungang WANG during his employment by Trane Company, the Supreme Court created a test to first determine the technical solution of the Application and the tasks and duties that were assigned to Chungang WANG during his employment by Trane Company, and then determine whether there is a relevance between the aforementioned technical solution and Chuangang WANG's tasks and duties.

Specifically, when determining the relevance between Chungang WANG's tasks and duties during his employment by Trane Company and the technical solution in the Application, the Supreme Court first made a technical field comparison for the Patent and Chungang WANG's tasks and duties as aforementioned, and determined that they fell in the same technical field of air conditioning. Then, the Supreme Court pointed out in the ruling that the key features that differ the technical solution of the Application from prior art are to use a single controller to establish heat and energy exchange between the floor heater and the heater boiler or main engine, so as to provide functions of floor heating and cooling via the same controller and thus to form an integral system with heat pumping, air conditioning, and floor heating. Evidence revealed that the object of Chungang WANG's tasks in the year

2008 included developing an “integral system capable of cooling, heating, and domestic hot water supplying”, in which “the main engine is connected to the water tank, fan coil, and floor heater respectively”, and that the tasks assigned to Chungang WANG about April 2009 included developing a “temperature controller for fan coil and floor heater” that “extends the application of floor heating to a controller network of fan coil”. Therefore, the Supreme Court ruled that the technical solution in the Application is a service invention accomplished by Chungang WANG during his employment by Trane Company.

Interpretation and Analysis

The Supreme Court provided in these rulings a method to determine service invention. That is, in order to determine the relevance in technical solution between the patent application and the task accomplished by the concerned party during his or her employment by the other concerned party, we may compare the key feature that differs the patent application from prior art with the content of the task and duty of the concern party during said employment, so as to determine whether the technical solution related to the patent application is a service invention accomplished by the concerned party during said employment by the other concerned party.

This determining method is both reasonable and operable. According to Article 6 of the *Chinese Patent Law*, service invention-creation includes two kinds, one being an invention-creation that an inventor accomplishes by performing tasks arranged by his or her employer, the other being an invention-creation that an inventor accomplishes by mainly using material and technical means of his or her employer. Apparently, in the ruling, the Supreme Court employed this method to determine whether the technical solution of the Application is a service invention of the former kind, that is, whether it is an invention-creation that Chungang WANG has accomplished when performing a task arranged by Trane Company. The author is of opinion that this method is also applicable to determine whether a technical solution of a patent application is a service invention of the latter kind, that is, an invention-creation that an inventor accomplishes by mainly using material and

technical means of his or her employer. In this case, one may compare the key feature that differs the patent application from prior art with the content of the technical solution that the inventor has made by using material and technical means of his or her employer, so as to determine whether the technical solution of the patent application is a service invention.

Furthermore, it should be noted that “the key feature that differs the patent application from prior art” herein is different from the “distinguishing feature” that differs a patent application from prior art employed in determining the inventiveness of the patent application. According to the patent practice in China, a three-step method is often employed to determine the inventiveness of an patent application, including “determining the closest prior art”, “determining the distinguishing feature that differs the claimed technical solution of the patent application from the closest prior art and thus the actual technical problem resolved by the claimed technical solution”, and “determining whether the claimed technical solution is obvious as for those skilled in the art”. Since the object, in determining the inventiveness of a patent application, is to objectively determining whether the patent application indeed makes inventive contribution to the prior art, by determining whether the claimed technical solution is obvious over the prior art as for those skilled in the art, “thus determined closest prior art may be different from that cited by the applicant in the specification of the application, and the actual technical problem resolved by the claimed technical solution determined based on the closest prior art may be in turn different from that described in the specification”[\[2\]](#). Such a determination may often result in that the distinguishing feature changes depending on which prior art is selected as the closest one. However, in determining whether a technical solution of a patent application is a service invention, the object is to confirm whether the creative activities conducted and/or the material and technical means used by the inventor when accomplishing the invention-creation related to the patent application indeed come from the activities under employment and/or the resources from the employer. Therefore, one should focus on the prior art and creative features described in the specification of a patent application, when determining the

key feature that differs the technical solution of the patent application from prior art in order to determine whether the patent application is related to a service invention.

[1] According to Article 2 of the *Patent Law of the People's Republic of China*, “invention-creation” comprises invention, utility model, and design.

[2] Part II, Chapter 4, Section 3.2.1.1 of the *Examination Guidelines* 2010 Edition