

Preliminary Freedom To Operate Analysis



Analysis Report Date: **Nov 1, 2023** Patent Data Last Update: **Jul 31, 2008 (retrospective analysis)**

Executive Summary

- Analysis Scope
 - Examined Jurisdictions: IP5, i.e., China, Europe, Japan, United States, and South Korea
 - o Examined Claims: pending patent applications and granted patents only
- Overview
 - The new product has a **Low to Moderate Risk** of Patent Infringement based on identified similarities with existing patents. While there are notable overlaps between the new product and the prior art, the new product also possesses distinct features that can differentiate it from the existing patents. These unique elements include specific applications like car service dispatching with a focus on minimizing pickup times, an emphasis on luxury vehicles and environmental sustainability, and the utilization of logistical LBS software. Despite these differentiators, the shared use of statistical analysis, predictive techniques, software for vehicle fleet management, and data collection and analysis with the prior art warrants proper planning and investigation to manage potential patent challenges.
- Adjacent Possible Preliminary Freedom To Operate (FTO) Score



- Overall Infringement Risk
 - o Low to Moderate Risk of Patent Infringement
 - Fully manageable risks with careful planning with appropriate planning around existing patents and technical solutions
 - o Score Indicators
 - 1ndustry Disruptive
 - Manageable Legal Risks
 - High Patent Competitors Influence
 - Score Interpretation and Context
 - Moderate Opportunity Zone Range: 601-700
 - High-Opportunity Zone: 701-800

Analysis Details

- Top Relevant Patents
 - **US20050216412A1** This patent describes a method, system, and computer program product for managing user-entered data in an electronic form, particularly for making a reservation with a transportation service provider.
 - **US20080004888A1** This patent describes an e-commerce method and system that identifies a retail location near a consumer's mobile device.
 - **US20060106530A1** This patent describes a system for predicting, visualizing, and alerting about traffic patterns.
 - **US20070124189A1** This patent describes a computer-implemented method and system for managing a fleet of configuration-controlled assets, such as vehicles.
- Major Patent Competitors
 - MICROSOFT TECH LICENSING LLC
 - o FMR LLC
 - THE BOEING COMPANY
- Risk Determination Insights

Aspects and Technical Features Considered Patentable	Infringement Risk	Decision Rationale
One-Click Car Service	Low to Moderate	Similarities The new product and prior art evidence involve some form of reservation or request for a transportation service. The patent US20050216412A1 and the new product both involve the use of an electronic form or interface to enter data related to the reservation or request. The patent US20050144048A1 and the new product both involve the use of a server to process the reservation or request data. The US20030050805A1 and the new product both involve the use of geo-location data to provide relevant travel information or services. <u>Novelties</u> The new product's 1-Click feature, which allows users to request a car service with a single click, is not described in any of the prior art. The product's integration of dispatch automation, wait-time reduction, and fleet management optimization is not described in any of the prior art. The product's pre-paid, cashless billing system is not described in any of the prior art. The product's
		seamless user experience, achieved through the

		integration of various technologies, is not described in any of the prior art. <u>Conclusions</u> Given the similarities listed, there is a low to moderate risk of patent infringement, meaning the it's a fully manageable risk with careful planning. The new product shares some features with the existing patents, however, it also has several unique features not described in the prior art, which could potentially differentiate it enough to avoid infringement.
Digital Hailing System and Intelligent Mobile App	Low to Moderate	Similarities Both the prior art and the new product involve the use of mobile applications to provide a service. Both systems use location-based services to match users and service providers. Both systems have a user interface that allows for interaction between the user and the service. Both systems involve the use of a networked routing manager module for receiving and responding to requests. Both systems provide personalized information based on the user's profile and location. <u>Novelties</u> The new product replaces traditional street hailing with a digital system, which is a novelty with respect to the prior art. The new product does not require medallion licenses as it operates on a membership basis. The new product incorporates features like intelligent scheduling, route optimization, and payment/utilization/reputation tracking. The new product provides a comprehensive and user- friendly interface for customers. <u>Conclusions</u> Based on the identified similarities and novelties, the infringement risk of the new product versus the prior art can be considered as 'low to moderate'. While there are some overlaps between the prior art and the new product, there are also significant differences and unique features in the new product that distinguish it from the prior art. Due to the presence of some similarities, there is a manageable risk of patent infringement with careful planning and thorough investigation.
Car Demand Forecasting	Low to Moderate	Similarities Both the prior art and the new product use statistical analysis to predict outcomes based on various factors such as the time of day, weather, and traffic conditions. Both systems use data from various sources to make these predictions. The new product and the prior art described in US20060111957A1 both consider the impact of traffic conditions on scheduling and positioning. The new product and the prior art described in

		LIS20060178811A1 both aim to optimize travel times based
		on traffic conditions
		Novelties
		The new product specifically focuses on optimizing the
		positioning of cars to minimize expected pickup time,
		which is a unique application not explicitly covered in the
		prior art. The new product is specifically designed for the
		field of car service dispatching, which is not the primary
		focus of any of the prior art patents. The new product
		does not involve any graphical display of predicted events
		US20060106530A1 The new product does not involve
		scheduling appointments or managing delays, unlike the
		prior art described in US20060111957A1.
		<u>Conclusions</u> Civen the similarities and the nevelties, the infringement
		risk of the new product can be classified as 'low to
		moderate'. While there are overlaps in the use of statistical
		analysis and consideration of traffic conditions, the
		specific application of these techniques to car service
		dispatching and the focus on minimizing pickup times
		the use of similar data sources and predictive techniques
		could potentially lead to patent-related challenges, hence
		the low to moderate risk rating.
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Elect Ontimization		Similarities
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<u>Conclusions</u> Based on the identified similarities and novelties listed above, the infringement risk for the new product is 'low to moderate'. While there are some overlaps with the prior art, there are also significant differences, particularly in the specific focus on luxury vehicles and environmental sustainability, and the use of logistical LBS software. However, because the new product does involve the use of software to manage a fleet of vehicles and the collection and analysis of data, which are also features of the prior art, there is a manageable risk of infringement
collection and analysis of data, which are also features of the prior art, there is a manageable risk of infringement that would require some planning upon appropriate technical investigation.



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