

**CITY OF NEW YORK**  
**Date of Issue: April 14, 2009**

THE CITY OF NEW YORK  
**TAXI & LIMOUSINE COMMISSION**  
REQUEST FOR INFORMATION (RFI)

RE:

**Improvements / Upgrades to the  
Taxicab Passenger Enhancement Program  
(T-PEP)**

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**AUTHORIZED AGENCY CONTACT PERSON**

Responders are advised that the Authorized Agency Contact Person for all matters concerning this Request for Information is:

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<b>Title:</b>	<b>Chief of Staff</b>
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## Section I- Executive Summary

This Request for Information (RFI) seeks to gauge the various options available for the improvement and further development of the Taxicab Passenger Enhancement Program (T-PEP). On March 30, 2004 the Taxi and Limousine Commission (TLC) Board of Commissioners mandated that specific technology be implemented in all medallion taxicabs. T-PEP installations were subsequently completed by December 1, 2008.

Among the current technological enhancements deployed in all New York City medallion taxicabs, the following four enhancements are required by TLC rule:

- Automatic Trip Sheet Technology;
- Driver Information Monitor (DIM) with text messaging capability;
- Credit/debit card payment capability; and
- Passenger Information Monitor (PIM) with payment screen, live map, and various content.

TLC seeks information from all segments of the taxicab industry, potential vendors of technology equipment and the riding public about all or any of the above technological service improvements, any aspect of each of the enhancements, modifications related to the enhancements, or potential business models to support technological enhancements.

In addition, each system deployed utilizes other media to provide an additional revenue stream. Additional media was allowed by the TLC with the assumption it would decrease the cost of the required system to the taxi industry. Business models should take into consideration maximizing revenues from advertisers, credit card usage as well as other revenue streams developed in concert with delivering the core enhancements in order to minimize or eliminate costs to the taxicab industry and the TLC, while providing the public with a superior in-taxi experience.

## Section II - Timetable

**Release date for this Request for Information:**

**April 14, 2009**

All questions and requests for additional information concerning this RFI should be directed to Ira J. Goldstein, the Authorized Agency Contact Person, at:

Telephone #: (212) 676-1017  
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E-Mail Address: ira.goldstein@tlc.nyc.gov

**Response Date, Time and Location:**

**Date:** June 15, 2009  
**Time:** 5:00 p.m.  
**Location:** Responses to this RFI shall be submitted to the New York City Taxi and Limousine Commission  
*By mail:* 40 Rector Street, 5<sup>th</sup> Floor  
New York, NY 10006-1738  
*By facsimile:* (212) 676-2002  
OR  
*By email:* [policymail@tlc.nyc.gov](mailto:policymail@tlc.nyc.gov)

**Section III - Background**

The TLC is charged with regulating and furthering the development and improvement of for-hire transportation services in New York City, which includes taxis, liveries, black cars, luxury limousines, ambulettes or paratransit vehicles, and commuter vans. The TLC acts through its Board of Commissioners. The Chairperson of the Board is also the TLC's Chief Executive Officer.

In 2004, the TLC Commissioners mandated the creation and implementation of T-PEP. Following the approval by the TLC's Board of Commissioners, the TLC oversaw the implementation of technology enhancements in all New York City yellow taxis; otherwise known as the aforementioned Taxicab Passenger Enhancement Program (T-PEP). The existing program components include Automatic Trip Sheet Technology (electronic collection and reporting of passenger pick-up and drop-off locations, passenger fares, and number of passengers); Driver Information Monitor (DIM) with Text Messaging Capability, Credit/debit card payment capability; and Passenger Information Monitor (PIM) with payment screen, live map, and on screen content.

Pursuant to that mandate, TLC staff determined that T-PEP should be available to medallion owners via a single, integrated, "turn key" system so that medallion owners would not need to purchase components or services from multiple vendors for each of the various technological enhancements. Since the required technology enhancements were not available as an "off-the-shelf solution," the TLC staff implemented the T-PEP program by issuing a Request for Proposals (RFP) and contracting with multiple vendors, each charged with providing an integrated system and service that would be offered for sale to medallion owners. It was further anticipated that competition among T-PEP vendors for contracts with medallion owners would result in T-PEP vendors reducing the price of the systems. Ultimately, three TLC selected vendors installed the T-PEP enhancements in all 13,000-plus NYC medallion taxis.

The TLC entered into zero dollar contracts with the vendors that fixed the maximum price each vendor could charge medallion owners for the installation and maintenance of the T-PEP systems in their vehicles. The TLC contracts also set minimum technological

requirements for the systems provided by the T-PEP vendors. Medallion owners were then allowed to negotiate among the competing T-PEP vendors for prices below the maximum prices established in the TLC contracts with the T-PEP vendors.

#### **Section IV – Purpose of RFI**

The TLC is issuing this Request for Information (RFI) to explore ways to improve the existing T-PEP. The TLC is soliciting feedback about options to improve the current T-PEP systems from the perspective of all stakeholders: the riding public, all segments of the taxicab industry, the potential vendors of technology equipment, content providers, and advertisers. Responders should be aware of the scope of the program: taxicabs alone generate approximately 200 million trips per year to the riding public. As such, the technology equipment within the NYC taxi fleet represents an enormous opportunity to provide a valuable, high impact media resource reaching residents and visitors alike. This product has the ability to provide break-through messaging in a captive environment.

The TLC anticipates that based on the information received in response to this RFI, a Request for Proposals (RFP) may be issued at a future date to seek one or more contractors to develop and install in-cab units and also support agency infrastructure improvements, amendments, and additions to the current program. The current contracts with T-PEP vendors will expire on August 31, 2010. The TLC has the option to extend the current contracts up to two additional years. **Vendors should note that no contract will be awarded pursuant to this RFI. TLC may choose to follow up on responses to this RFI in any fashion that TLC may deem to be useful to the purposes of the RFI, including follow up discussions with any or all of the RFI responders. Likewise, submission of a response to this RFI will not enhance any vendor’s chances to be either included in any preferred vendor’s list, or be awarded a contract pursuant to any RFP, should one be issued in the future.**

#### **SECTION V - Content of the Response**

Responses to this RFI may include, but are not limited to, possible approaches to any or all of the following:

##### **Passenger Benefits**

- Enhanced opportunities to integrate improved Passenger Information Monitor (PIM) content including: new applications, increased access to Public Service Announcements and City produced content, music videos on demand and entertainment in general;
- Improved methods to deliver PIM content and services to passengers;
- Wayfinding; knowing where you are, knowing your destination, following the best route, recognizing your destination, and finding your way back;

- Mobile technology (i.e. functionality to connect with phone, Bluetooth or other devices);
- Standardization of advertisements and other content to provide uniform platform across all taxis;
- Additional payment options;
- Enhanced receipts – Larger, more detailed, delivered electronically to an e-mail address;
- Ability to access internet;
- Location based services/advertising;
- Possible synergies with common mobile smart phone capability.

#### Taxicab Industry Benefits

- Driver navigation systems;
- Enhanced Driver Information Monitor;
- Lower credit card processing costs;
- Improved driver amenities;
- New Media;
- Improved fleet management.

#### NYC/ TLC Benefits

- Better access to trip sheet data and more streamlined, comprehensive analytical abilities;
- Enhanced functionality of text messaging and PIM options to the entire taxi fleet and/or various subsets of taxis;
- Prevent driver use of cell phones while on duty other than for emergencies through emerging cell phone blocking technology;
- Improved oversight and testing capability of T-PEP systems;
- Ability of taximeter to calculate multiple fares;
- Ability of T-PEP systems or portions thereof to be used in other TLC regulated industries.

No specific format is required for responses to this RFI.

Responders are encouraged to comment on the viability of, and best practice models for achieving, the improvements outlined in this RFI, including whether having one or more vendors would facilitate obtaining these goals. Responders are also encouraged to submit any additional comments and suggestions.

#### Driver Navigation and Information

The current T-PEP system utilizes a Global Positioning System (GPS) for the automatic collection of trip sheet data and live passenger maps. The TLC is seeking comments on additional uses of the GPS components, such as providing drivers with a navigation

system with Points of Interest (POI), and other information customized for use specifically by the taxi industry including relevant information from the City and TLC including timely traffic information. Examples of customized POIs might be TLC facilities, available restrooms, gas stations and driver relief stands.

#### Increased Revenue

Under the current T-PEP system business model, medallion owners receive a share of advertising revenue mainly in the form of a discount in the overall cost of equipment and maintenance. The TLC seeks to find ways to increase the amount of revenue produced by the T-PEP systems through the development of innovative content and advertising. TLC is particularly interested in ways to leverage both the T-PEP system and the emerging mobile PDA technologies to create new revenue streams.

#### Non-Cash Payments

TLC is interested in exploring ways to lower the credit card transaction costs in order to eliminate or reduce medallion owner and driver expenses. The RFI seeks opportunities for new and improved payment options, including solutions that leverage smart phone technologies. The TLC is interested in learning about the benefits and disadvantages of an open/closed loop payment card system. The TLC would like to explore providing drivers with debit cards attached to bank accounts if this can facilitate or expedite the cash payout process between drivers and owners. This debit card could be used to provide additional driver benefits such as discounts for gas stations, car washes and/or frequented restaurants.

#### Improved PIM Content and Applications

The TLC services over 600,000 passengers daily. The TLC wishes to explore the possibility of requiring the PIMs to present more robust and varied content. The TLC also wants to determine if standardization of the payment process and map design across the entire taxicab fleet are preferable to passengers and/or vendors. The TLC is interested in making basic information about the taxicab industry and passengers' rights available on the PIMs in the most popular languages used by residents and visitors to New York.

The TLC seeks input on upgrades to the accessibility of the PIM in terms of visual, audio and other enhancements that will improve accessibility and usability of the T-PEP system for persons with disabilities, including the possible integration of hearing loop induction technology or integration of the T-PEP systems for use as a dispatch system for wheelchair accessible vehicles.

The TLC seeks comments on how to make the content on the PIMs more engaging through enhancement of the potential interactive functionality of the PIMs. Possibilities include interactive Points of Interest for passengers on the PIM maps based on the taxi's location. The TLC is interested in providing detailed driver information on the PIM including driver photos, names, and hack license number. Passengers could have the ability to submit compliments or complaints about a cab or driver or provide feedback by survey or message, with the results transmitted to 311 or the TLC in real time. The TLC

welcomes comments on interactive programs and games that may be utilized during a taxicab ride. The TLC is also interested in the ability to provide in-vehicle internet (e.g. Wi-Fi) capability to passengers.

The TLC seeks comments on the viability of permitting third party applications to interact with the T-PEP systems or be installed on the PIM, similar to applications which may be purchased and downloaded to a smart phone. This may increase innovation and provide additional entertainment/informational options for passengers.

#### Additional Payment Options for Passengers

The TLC is currently exploring the possibility of expanding taxicab group rides. To facilitate this, the TLC seeks comment on the feasibility of mandating point of sale devices to accept split tender so passenger(s) may pay via multiple credit/debit cards or credit/debit card(s) and cash. The TLC is also interested in exploring refillable taxi payment cards, open or closed loop, for passengers' convenience as well as any future innovations in the payment card industry. Through use of currently available technology, a "taxi card" could maintain a passenger profile as to PIM content preferences or offer "frequent rider miles".

#### Ability of Taximeter to Allow Multiple Fares

Currently, the taximeters approved by the TLC permit only one fare at a time to be hired. The TLC is currently exploring allowing multiple fares simultaneously. In addition, the ability to hire multiple fares would be useful for group rides, during emergencies, major transit outages or strikes. The proposed systems should explore the opportunities and challenges of permitting multiple fares.

#### Improved Passenger Receipts

The TLC may explore providing upgraded receipts that are larger and easier to read and allow for the option of the passenger to transmit payment receipts to their own e-mail address or smart phone. Improved receipts will facilitate passenger interaction with 311 and the TLC for complaints, compliments, suggestions or facilitate recovery of lost property. This also presents additional opportunities (advertising and couponing) to further message/interact with NYC taxi passengers. Responders are welcome to discuss whether an enhanced receipt may provide opportunities for additional revenue, such as location based advertisements and coupons on the back of receipts.

#### Improved Oversight and Testing Capability of T-PEP Systems

The TLC will explore the feasibility of creating a system to provide automatic diagnostics of the T-PEP systems via plug-in tools or self-reporting diagnostics utilizing the in-taxi communication package in order to improve the current service level agreements. The TLC would also welcome comments on requiring access to PIM content via a web portal to enable the TLC to view real time content updates.

#### Enforcement of TLC Rules

While the owner of a medallion taxicab has an affirmative duty to ensure that only current licensed drivers operate their taxicab, the TLC welcomes comments about

enhancing the T-PEP systems to prevent an unlicensed or suspended driver from enabling the T-PEP system and meter through the use of technology such as a bar code scanner, RFID reader or biometric device built into a TLC operator license and/or in-cab unit.

Recently, there has been emerging technology on the ability to block cell phone usage in vehicles. The TLC would welcome comments on the advances in this area in order to prevent cell phone usage by drivers while not interfering with a passenger's ability to use a cell phone as well as the feasibility of implementing this type of technology as part of the T-PEP system.

The TLC is also open to exploring other mechanisms to enforce other licensure requirements.

#### Data Management and Regulatory Compliance

The TLC seeks to explore the possibility that the next generation of T-PEP will include a data management package that will facilitate TLC's regulatory function in at least two respects. First, comprehensive analysis of trip data would enable the TLC to better understand the performance of the for-hire transportation industry, and would assist the TLC in developing regulatory policies to enhance the industry's performance in providing service to the riding public. Second, analysis of trip data would enable the TLC to systematically enforce certain existing regulatory requirements, such as the requirement that corporate taxicab medallions be double-shifted and the requirement that drivers work no more than 12-hour shifts.

#### Integration with Taxi of Tomorrow Project

The Taxi of Tomorrow project is a unique opportunity to explore upgrades to the existing NYC taxi fleet by learning about possibilities for a more appropriate vehicle that reflects the needs of its diverse stakeholders - passengers, drivers and medallion. The RFI seeks to gauge the various options available to bring a new model medallion yellow taxicab to New York City in the near future.

The TLC solicits comments for the integration of the T-PEP program and the Taxi of Tomorrow project. Information about the Taxi of Tomorrow program is available at: [http://nyc.gov/html/tlc/html/news/taxi\\_of\\_tomorrow\\_intro.shtml](http://nyc.gov/html/tlc/html/news/taxi_of_tomorrow_intro.shtml). Innovative approaches to this idea are encouraged, such as the possibility of integration of one or more T-PEP components, or the taximeter, into the vehicle itself, and creative approaches to information display for the driver and passenger.

#### Ability of Systems to Extend to Other Industries Regulated by TLC

While the T-PEP system is mandated for use in more than 13,000 taxicabs, the TLC regulates more than 35,000 other vehicles, which include black cars, livery cars, luxury limousines, ambulettes or paratransit vehicles, and commuter vans. The TLC is considering whether to permit TLC-regulated vehicles other than taxicabs to install a T-PEP system or components thereof on an optional basis, or whether to require a system with limited capabilities, such as electronic trip information and enhanced payment options.



Exclusive or Multiple Vendors?

All three (3) current T-PEP vendors have multiple subcontractors in order to provide a turn key system to the taxicab industry. The TLC welcomes comments on the benefits and disadvantages to all stakeholders of choosing an exclusive T-PEP vendor for the entire New York City taxicab fleet. Issues that responders may choose to address include vendor capacity to handle over 13,000 vehicles; effect on pricing of T-PEP systems to the taxicab industry including economies of scale on production of the systems and a T-PEP vendor's ability to offer potential content providers and advertisers an audience of approximately 600,000 passengers on a daily basis.