# <u>APPLICATION TO DERBY CITY COUNCIL FOR APPROVAL OF THE</u> CABTIVATE SYSTEM

The directors of Cabtivate Media Ltd have worked in the Scottish Taxi Trade for around eighty years collectively. Throughout this time they have developed a great deal of knowledge and understanding of taxi licensing conditions, initially as they appertain to the Civic Government (Scotland) Act and now, latterly, on a UK level as the Cabtivate system gains approval nationally.

Currently, the Cabtivate system has approval from the following local authorities;

City of Edinburgh Council
Glasgow City Council
Dundee City Council
West Dunbartonshire Council
Birmingham City Council
Bristol City Council
Manchester City Council
Peterborough Council
Reading Council
Liverpool Council

and has outstanding applications in London, Swindon, Leeds, Bradford, Doncaster, York, Cardiff, Gateshead, Belfast, Stoke on Trent, Newcastle, Poole, Basingstoke, Maidstone and Wirral.

Cabtivate has always been stringent in its support of city councils and local authorities from whom it has sought approval regarding the acceptability/unacceptability of content on/in taxis.

Furthermore, I can assure the Committee that neither advertising nor non-advertising material will be displayed on the Cabtivate system which contravenes the guidelines set by any of the following; your Licensing Authority; the Office of Communications (OFCOM) Broadcasting Code; the Advertising Standards Authority (ASA); the British Board of Film Classification (BBFC). With regard to the BBFC, only those films/videos which are classified U, Uc, or exempt from classification will be broadcast by Cabtivate.

Moreover, as standard, we are able to offer the additional security benefit whereby your approvals staff will have access to our FTP servers. This then allows them to view any proposed advert PRIOR to it being sent remotely to the taxi fleet, which in turn maintains the integrity of the system and prevents the display of unapproved material.

# **Pilot Completed**

Since January 2003 the Cabtivate system has operated in Edinburgh taxis using the existing Taxi Licensing Conditions as a framework. The pilot, which was conducted over 18 months, used a mixture of 30 TX1/TX11 vehicle models.

In December 2003, Cabtivate commissioned independent market research to establish how the system has been received by taxi passengers. Below are some of the results.

- 1 92% of passengers watched the screen for the whole or most of their journey
- 2 84% of passengers find the inclusion of the screen showing advertising an enjoyable addition to the taxi journey
- 3 79% of passengers disagreed or disagreed strongly that the inclusion of a screen showing advertising was an irritating addition to the journey
- 4 Only 8% found the system irritating, of that 8% a mere 1% turned the system off.

It should also be pointed out that the only content playing on the system during this survey was adverts. We expect these figures will be improved upon when we begin broadcasting other information and entertainment such as Local and National News, Sport & Weather, short films and Local Authority messages etc.

## **Passenger Controls**

The Cabtivate system can be controlled by the passenger during a fare journey. Passengers have the facility to:

- 1 Increase volume (preset maximum)
- 2 Decrease volume (preset minimum)
- 3 Mute the system
- 4 Switch the system off

#### **Content Updates/System Connectivity**

The Cabtivate system can have its media content and application software updated remotely via two different types of wireless communication.

#### <u>GPRS</u>

Each system contains a GPRS modem, which utilises the same technology as

mobile phones. We send a text message to the system which requests it to contact our servers and download new media content, i.e. text, images and audio. Software changes can also be made this way.

GPRS has a relatively slow transfer speed, but benefits from being accessible from anywhere that can receive a mobile phone signal. We can send a GPRS update at any time without disturbing the taxi driver's day to day schedule

#### WLAN

In addition to GPRS, each system includes a WLAN (Wireless Local Area Network) card. This provides the system with a means of connecting to a Cabtivate WLAN 'Hotspot' to transfer data. The 'Hotspot' is a centrally designated location, within their licensing area, which has been installed with WLAN and server equipment, where Cabtivate taxis physically visit.

WLAN provides high speed transfer of large files. We use this method to transfer the large video content files, along with any other updates to the system on a once-monthly basis. Currently, a full media update which updates all of the content on the system for the month, takes approximately four minutes per taxi.

We send a text message to the system which signals to the driver by way of our dash-mounted 'Driver Display Unit' (DDU) that a WLAN update is required within a given timeframe. The driver then takes the taxi to the designated 'Hotspot' where the Cabtivate system will automatically connect to our server once within range.

Once the update is complete, the driver is notified via the DDU that the transfer is finished and he is free to go. The process takes about 3 minutes to complete.

## **System Security**

The Cabtivate system software has been designed and programmed in-house by the Cabtivate development team.

The security of the system is paramount, resulting in various measures being implemented from the outset that control access to the methods of updating each system.

## Server Network

All of our servers are behind multiple layers of security, including Linux based hardware firewalls, encryption and IP specific authentication, providing a very high level of security and resilience.

#### **GPRS**

The GPRS updating method requires authentication to be provided when sending the signal for the system to connect to our servers. If incorrect or no authentication is provided, the message is ignored.

If the ID's were to become available to someone outside Cabtivate, they would not be able to interfere with the system without physically using a Cabtivate SIM card which the application is programmed to accept messages from. Even then, they would have to know the taxi's specific id AND know what message to send as the system only accepts and act upon specific messages.

If anybody were to manage to get a message through to a system, the result is that the system connects with our server and completes a predefined task. At no time is the content which is displayed on the screen in danger of being altered.

## **WLAN**

WLAN also seeks authentication in order to establish a connection with the 'Hotspot' This authentication is hard-coded into both the system application and the 'Hotspot' servers. In order for a WLAN update to take place, a message has to be sent to the system in the first place, which as described in the GPRS paragraph, would involve knowing security protocols that are unavailable outside Cabtivate.

I believe the foregoing demonstrates how advanced this system is and I would hope that this high, but achievable standard, could be viewed as the benchmark for any system which will inevitably come along in the future. We learned that simple things like ensuring the passenger has control over the passenger environment of the taxi added to their enjoyment of their journey.

# **Taxi Licensing Conditions**

Having been central to the initial drafting of the current licensing conditions relative to taxi advertising in Edinburgh and Glasgow, Cabtivate fully understands what is acceptable to be displayed as an advertisement externally/internally on/in a taxi cab.

Generally, these conditions were written for a longer term print medium and do not cater specifically for an instantly updateable Audio Visual (AV) medium in taxis. E.g. we provide News & Weather updates four times per day, announce sales in retail outlets, drive numbers to local events, broadcast local information messages and emergency messages etc. Therefore we understand a review may be required and we would be pleased to assist where we can and have forwarded a set of Model Conditions.

## Compliance

Our system has been independently tested by Manchester University and meets all the current Construction & Use Regulations.

We have had the system independently tested and passed for Electro Magnetic Frequency (EMF) emissions.

The system was inspected and approved by agents from the Automobile Association.

The Motor Industry Research Agency Ltd (MIRA) of Nuneaton, Warwickshire conducted tests into the integrity of the driver safety partition once four holes had been drilled into it to mount our screen. The tests demonstrated no negative effects as a result of drilling.

All equipment relating to the Cabtivate system is located in the driver's compartment and is not visible from the driver position. The display screen is located behind the driver headrest affixed to the perspex partition between driver and passenger compartment. Therefore, there is no risk of injury to the driver from the system in the event of a road traffic accident.

Cabtivate can, therefore, with confidence state that its system does not interfere with any other safety, control, electrical, computer, navigation, satellite or radio system in the vehicle. Moreover, the installation of the Cabtivate system will not weaken the structure or any component part of the vehicle or interfere with the integrity of the manufacturer's original equipment.

## **Local Authority Benefits**

#### Reduced average vehicle age

Because of the attractive and substantial rewards taxi operators will receive as a result of having this system installed we feel it is reasonable to assume they will upgrade their vehicles in order to be able to participate.

#### Technology product - innovative City

Our technology product will demonstrate to visitors the vibrancy of the administrative area, its cultural diversities and its approach to innovation, not to mention a new way to promote to them, some of the attractions they should take-in during their visit.

## Free event advertising

Where other Local Authorities do not have a budget to support or promote their local events, Cabtivate makes available free event advertising for that purpose. We feel that both the taxi trade and the local authority benefit from successful events within the administrative area and look to supporting both to that mutually beneficial goal. Also the systems content can include Local Authority welcome, safety and licensing messages to passengers.

## Uniformity of fleet

Our system is only available in traditional, purpose built vehicles. Our research shows that Taxi Owners with older/other vehicles will change vehicles in order to participate.

## Improved passenger experience

From independent market research we are able to demonstrate that passengers are engaged and entertained by the system, as per results noted earlier.

# Improved passenger safety

Passengers and especially lone females, are encouraged via an advert on the system to "text the taxi licence number to a friend" the advert will visually point out to the passenger where this number can be found in the taxi.

We believe this initiative is supportive of the taxi trade as it demonstrates to the travelling public they are prepared to be both accountable and transparent.

#### Increased passenger choice

Passengers can decide whether to watch the Cabtivate system or not. Our aim is to install around 30% of the fleet within 36 months.

# **Taxi Owner Benefits**

#### Additional Income

The additional income to Taxi Owners is substantial. Over a four year period they would receive a monthly payment which would amount to £10,700 increasing to almost £15,000 if they chose to have an externally liveried taxi. Given that this income effectively halves the cost of a purpose built taxi purchased for £30,000, it's easy to see why we have so many Taxi Owners wishing to take up the offer.

#### Higher Residual Value

If the taxi driver decides to upgrade his taxi during the contractual period (four

years), the contract can be transferred to the new owner. The taxi will have a higher residual value since it can be sold with a guaranteed income.

## **CCTV**

Taxi Operators have the option to have their system upgraded to include a CCTV facility with no financial burden being placed on them whatsoever. The CCTV system constantly records up to the last 30 minutes; these images cannot be accessed from the taxi. In the event of an incident the images are remotely transferred to our control room and can be made available to either Police or Local Authorities.

#### Free Insurance

The system comes fully insured by Cabtivate to cover third party, fire and theft, which avoids any loading onto their existing policies.

#### Less Downtime

Taxi Owners vehicles will have less time off the road than they currently experience in comparison to having liveries or door posters fitted. We find many owners simply don't want adverts on their vehicles, preferring to keep them aesthetically pleasing, not only for their own benefit but also for their passengers.

#### **Entertained Passengers**

The Cabtivate System is designed to ensure that passenger comfort, safety and convenience is not compromised, but rather enhanced. This has generally resulted in happy passengers being generous passengers!

I hope the above gives all the required information to support this application. However, should you require to discuss our proposal further or have any queries relating to either this application or the Cabtivate System, please do not hesitate to contact me.

Yours sincerely

Keith AF Neilson

Development Director